



# MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

Trade-Name Registered in the U. S. Patent Office.

Vol. LVI. No. 18.  
WEEKLY.

BALTIMORE, NOVEMBER 11, 1909

\$4.00 A YEAR.  
SINGLE COPIES, 15 CENTS.

## Manufacturers' Record.

PUBLISHED EVERY THURSDAY BY THE  
MANUFACTURERS' RECORD PUBLISHING CO.  
BALTIMORE.

RICHARD H. EDMONDS, President.  
FRANK GOULD, Vice-President.  
VICTOR H. POWER, Treasurer.  
I. S. FIELD, Secretary.

RICHARD H. EDMONDS,  
Editor and General Manager.

EDWARD INGLE, Managing Editor.

ALBERT PHENIS,  
General Staff Correspondent.

### Branch Offices:

New Orleans—1012 Maison Blanche.  
New York—52 Broadway.  
Boston—170 Summer Street.  
Chicago—1116 Fisher Building.  
St. Louis—543 Century Building.

Subscription, - - - - - \$4 a year  
(payable in advance) to United States,  
Mexico, Cuba, Porto Rico, Hawaii and the  
Philippines.

To Foreign Countries (including Canada) in  
the Postal Union, \$6.50 a year.

[Entered at the Baltimore Postoffice as sec-  
ond-class matter.]

BALTIMORE, NOVEMBER 11, 1909.

### SAVED!

Last week's world-wide rumor, of most mysterious origin, of disaster to a world-renowned Nimrod and litterateur in Africa certainly diverted the attention of the unregenerate from an interesting phase of his contribution to magazine literature.

### WISE MAN OF THE WEST.

William Robinson, editor of the *Roswell Register-Tribune*, announces that he will decline the governorship of New Mexico and that he would rather stay in the newspaper business than hold any office. Right he is. If every newspaper editor could avoid the temptation to participate personally in politics, either as an officeholder or as an office-seeker, American politics and American journalism would both be on a higher plane than they are.

Mr. B. C. Cook, manager at Charlotte, N. C., for Bonner & Barnwell, manufacturers of pure oak-tanned leather belting, etc., New York city, writes to the *MANUFACTURERS' RECORD*:

I want to express our sincere gratification as subscribers to the *MANUFACTURERS' RECORD*, which we have taken for years. It is a journal which every business man in the South should have to keep in close touch with the developments going on throughout the South. We find it as necessary to read the *MANUFACTURERS' RECORD* as to eat—one keeping us closely informed as to business conditions, the other to keep our physical condition in good trim. We have secured several thousand dollars' worth of business by consulting the pages of the *MANUFACTURERS' RECORD* from time to time, especially your "Construction Department," and would no more be without it than we would be without our help to run our business.

### MEANING OF HIGH-PRICED COTTON TO THE SOUTH.

If present prices prevail through the crop season, it is possible that the cotton crop this year will be worth to the South \$900,000,000 to \$1,000,000,000. Last year's cotton crop was valued at \$683,000,000, not including the seed, and if to this be added the value of the seed, it was about \$780,000,000. With cotton selling at about present prices and the fine grades of long staple selling in many cases as high as 18 or 20 cents and over, it is possible that this year's crop, counting the seed, which are selling relatively as high as cotton, may yield 150,000,000 to \$200,000,000 in excess of last year's value.

Wonderful, indeed, are these figures. If realized, as it now seems altogether probable they will be, this year's cotton crop will be worth largely more than double the world's production of gold, great as that is, or, stated in another way, it will exceed in value the aggregate capital of all the national banks in the United States.

The high price now ruling for cotton means that the farmers in the Southwest, whose cotton crops were short, will receive for the smaller yield equally as much as they received last year, and in some cases even more, and thus be fully compensated by the increased value. The farmers of the central South, however, where the cotton crop is as large as it was last year, will reap such a harvest of prosperity as they have never known. In Georgia the increased value of the cotton crop this year over last, should present prices hold, will be about \$50,000,000, giving that State probably \$175,000,000 or more for its cotton and cottonseed. The Carolinas will do proportionately as well, and Alabama and Mississippi, although their crops may be less than last year, will receive in the aggregate much more for cotton this year than they did last.

These wonderful facts are of tremendous import to the South. They will give to that section a surplus of wealth such as it has not had before since 1860. The \$50,000,000 of profit on cotton over and above the profit made last year by the farmers of Georgia is in itself a vast wealth which ought to be productive of limitless good to that State. This billion-dollar cotton crop may be made to do great things for the South if this wealth be wisely utilized. Out of the surplus profits many thousands of new and better homes can be built, many thousands of new and better schools and churches should be built, many thousands of miles of good roads should be constructed and every avenue of business activity should feel the thrill of the new life that comes from this great influx of money.

And then, too, it is not cotton alone that is this year blessing the South. The grain crops as a whole have been good; the orange crop of Florida will probably run to 6,000,000 boxes, or 50 per cent. more than last year; the apple orchards are yielding in many sections a harvest to their fortunate owners,

while fruit and trucking, dairying and kindred pursuits are all helping to enrich the South with large yields and good prices which have this year prevailed.

Moreover, to the prosperity of the farmers is to be added the increasing prosperity of industrial interests. The railroads are once more crowded with business, and everywhere there are indications of coming car shortages and of inadequate facilities to meet the growth of traffic. Coal mines are becoming crowded to their capacity at advancing prices for their output; the consumptive demand for iron is exceeding the producing capacity of the furnaces. In the lumber regions there is a gradual trend to better things, and though at the moment cotton mills claim that there is no margin of profit between the raw material and the finished product, the cotton goods trade of the world must adjust itself to the higher range of values and give to the spinners a fair measure of profit.

Into Texas thousands of well-to-do Western farmers and investors from many sections are pouring, blessing that State with a great influx of additional energy and capital, while in Florida the same movement is under way on a somewhat smaller scale. Into other Southern States here and there new settlers are coming, although the movement is not on such a scale as in Texas or Florida. The whole South, however, must soon become the center of immigration activity, just as Texas and Florida and Oklahoma now are. The outlook is cheering; it is optimistic in the highest degree.

The South is on the high road to prosperity. Let it utilize its great wealth wisely; let its people avoid speculative dangers which are sure to come; for wherever great wealth suddenly develops the unwary are sure to be led into many wild-cat enterprises by men who make a business of living on the hard-earned profits of others.

With all this wonderful wealth which is coming upon the South, with this billion-dollar cotton crop now being gathered, let us forever banish from every mind the thought of the South being a poor country; let us forever cease to talk poverty. Let us, on the contrary, rejoice in the boundless wealth that is coming upon the South; that has already come upon it, and let us come into a full realization of the fact that in the light of such wealth no greater disgrace could come upon this section than to permit any of its people to pose before the world as seekers after either charity of philanthropy from outsiders for school or churches, or even for the eradication of the bugaboo of the hookworm from the South; let us forever banish the hookworm of mendicancy which has been used by many outside people, and, unfortunately, by some Southern people, to give to the world the impression that the South is a land of laziness and of poverty. What a travesty upon a land of such bound-

less wealth-creating, wealth-producing resources!

If we could banish the mendicant mind from many people who for the sake of notoriety or the desire to share in the "pap" are forever prating about the South's poverty or about sickness in the South, without exception the healthiest part of America, or about lack of energy, this section would stand erect before the world, with a backbone that neither asked nor received the patronizing gifts of the rich, and, thrilled with the strength of its own possibilities, the South would lead the world in manhood and in wealth.

### SHIPPING ALABAMA RAILS ABROAD.

The steamship *Drumlanrig* is now loading at Pensacola a cargo of 6000 tons of Birmingham-made steel rails for South America, and a report from Pensacola states that about 10 more steamers will be used in shipping the steel rails to be exported via that port. These rails, which are the product of the Tennessee Coal, Iron & Railroad plant at Birmingham, are a part of contracts recently reported in the *MANUFACTURERS' RECORD* aggregating 110,000 tons for shipment to the Argentine and Brazil. At an average of 5000 to 6000 tons to the cargo, about 20 steamships will be required, some of which will probably load at Mobile.

This is a vivid illustration of the remarkable turn which has taken place in the metallurgical development of the South when Southern-made rails are shipped through a Southern port to foreign markets.

### AS THE "SOUTHERN ARCHITECTURAL MONUMENT" AT WASHINGTON COMES DOWN FROM THE CLOUDS.

It was launched at a little dinner of the expected ground-floor occupants on December 10, 1908. Reinforcement of hot air was attempted at the banquet of March 15, open to anybody accepting an invitation, not a difficult undertaking at Washington, as the list of distinguished representatives of all parts of the country present demonstrated. Then came the stand-up luncheon that was to have been to enable the United States Senators and Representatives to get in contact with the zephyrs. Now, at the same moment of the publication of an advertisement headed "Proposed \$1,000,000 Home of Southern Commercial Congress," a statement was made at Washington, D. C., last Friday, in connection with hopes of building at an aggregate cost of \$1,500,000 a structure with a big tower on the site of the old St. Matthew's Catholic Church, by the president of the building corporation—

The objects of the Southern Commercial Congress are aside from those of the Southern Building Corporation. We will erect a great office building. \* \* \* Our company is incorporated for the purpose of erecting the structure and is inviting subscriptions to its stock. It will be a home for the Southern Commercial Congress, but the Congress

will have to rent its quarters like anyone else. The Congress owns stock in the building project, and will get returns from that stock which will assist it in its work.

With this statement the following announcement was made:

The Southern Commercial Congress will occupy part of the building and will hold its sessions there. The Congress also will hold stock in the corporation. To consider a proposition to raise \$150,000 of the building fund in this city, the building committee of the Chamber of Commerce will hold a meeting this afternoon.

What the building committee of the Washington Chamber of Commerce did with the project is yet to be revealed to us. But the announced meeting of Friday marks a distinct stage in the history of the rise and fall of the "Southern Architectural Monument" that was to have been at the Capital of the Nation and was to be flanked some time or other in the vasty future by similar Architectural Monuments of the North, the East and the West. It was grand, magnificent. Arrival at a distinct stage calls for a brief condensation of the wind that has been persistently wafted from Washington during the past eleven months as an excuse for the existence of the "Southern Commercial Congress." The blasts are presented as nearly as possible in the order of their creation, and with the localities of their appearance.

Washington, December 12.—The project for the erection in this city of a large office building to serve as the headquarters of the Southern Commercial Congress gathered considerable headway yesterday. \* \* \* It was also stated last night that additional subscriptions to the building were received yesterday by the committee, bringing the amount in sight up to about \$300,000.

Montgomery, Ala., December 20.—The project is a great office building and auditorium in Washington. \* \* \* This now promises to come into being, and \$250,000 is already in sight for the purpose.

Knoxville, Tenn., December.—At the meeting of the Commercial Congress, held this month, \* \* \* raised \$250,000 toward the million-dollar fund. Since the meeting \* \* \* has raised in this city \$150,000 of the fund. This makes \$400,000 that has been raised.

Washington, D. C., January 12.—The publication here this morning that the Southern Commercial Congress had actually purchased ground for the erection of the proposed million-dollar building was cause for many favorable expressions.

Washington, D. C., January 13.—I have definite assurances that the money has been secured, and there is no doubt that the plans will be consummated. The property was purchased for \$500,000 and paid for in cash.

New Orleans, January 12.—"We merely have an option on it," said Mr. John M. Parker, president of the Southern Commercial Congress, Tuesday morning. "On Monday I received a telegram informing me that the Congress had obtained the option, but the deal has not been consummated, and will not be until the executive committee meets in Atlanta the latter part of this week."

Mr. Parker told the truth. His statement was in marked contrast to much that has been circulated into the newspapers of the South since the plan had been broached, but not by him. Yet an "official statement" given out at Atlanta on January 16 was calculated to give an impression that there was something more than an option. It said:

The recent action of the officers of the Congress in acquiring a location in Washington for its future home was unanimously confirmed.

For the site of the proposed building the Southern Commercial Congress has obtained the most magnificent location in Washington.

There was truth, too, in the statement at Atlanta, January 17:

Results in the form of \$23,000 subscribed toward the Southern Commercial building were announced last night by the executive committee of the Southern Commercial Congress. \* \* \* The names of the pioneer

contributors who subscribed the first \$23,000 were announced.

Compare this truth with the subscriptions of about \$300,000 announced on December 12 and the \$400,000 that had been raised a few days later. More records of the rise and fall follow:

Montgomery, Ala., January 19.—With the contribution of \$100,000 from the city of Washington added to the nucleus of practically a similar amount subscribed by members, the work at the Washington site for the permanent home of the institution may begin shortly.

Memphis, Tenn., November 19.—It is our purpose to erect in the city of Washington, on a site which we have purchased at H and 15th streets, at a cost of \$511,000, a magnificent office building.

Washington, D. C., February 10.—A payment of \$10,000 was made today by G. Grosvenor Dawe, managing director of the Southern Commercial Congress, on the St. Mathew's Church property \* \* \* to representatives of Cardinal Gibbons.

Washington, D. C., February 13.—Fill out the draft hereto attached by dating and signing the same and drawing it on your bank. Also date and sign the three notes hereto attached, and forward the entire sheet to the United States Trust Co., Washington, D. C., who will thereupon sign and send you the receipt attached to the bottom of the sheet. Upon the payment of check and notes the subscriber will be entitled to perpetual membership in the Southern "Commercial" Congress, a business organization whose headquarters will be established at Washington, D. C., and which is formed for the purpose of promoting and developing the interests of the South, and will further be entitled to a life membership in the Southern Club, a social organization proposed to be formed in connection with the Southern Commercial Congress, and having its headquarters likewise in Washington, D. C. Certificates of Membership in the Southern Commercial Congress and in the Southern Club will be ultimately delivered to you in exchange for this receipt of the United States Trust Co.

To these instructions, in which we have italicized certain words, were attached a blank draft for \$250 and three blank notes for \$250 each which sober business men were expected to sign and mail for the account of a non-incorporated aggregation. But the winds continued to blow. Thus:

Birmingham, Ala., February 15 (by way of Washington).—Managing Director G. Grosvenor Dawe of the Southern Commercial Congress this morning gave out the following statement: "Up to this morning Birmingham leads all Southern cities in the number of individual pledges to the endowment fund of the Southern Commercial Congress."

Washington, D. C., February 26.—The old St. Mathew's Church property \* \* \* yesterday afternoon was turned over to the trustees of the Southern Commercial Congress, who bought the site several weeks ago from the Catholic Church authorities. \* \* \* The purchase price of the St. Mathew's Church property was \$511,000. \* \* \* By the terms of the papers in the transactions the property is transferred subject to a first trust of \$100,000 and a further trust of \$190,000, payable on or before November 1, 1909, with interest of 4% per cent. at date of maturity.

Louisville, Ky., March 2.—A sum of \$1000 is requested of the Louisville Board of Trade, which probably will be forthcoming at an early date. When the necessary \$1,000,000 has been raised it will be invested in the improvement of the Southern section of the country, including Louisville and the State of Kentucky.

Montgomery, Ala., March 2 (by way of Washington, February 26).—The required payment on the St. Mathew's Church property was made today. \* \* \* The balance due on the property is payable without interest, in view of which \* \* \* agrees that the rentals of the two houses on the property shall in the meantime go to the sellers.

Columbus, Ga., April 18.—It is announced by G. Grosvenor Dawe, managing director of the Southern Commercial Congress, that, according to present plans, the work of removing the old St. Mathew's Church building \* \* \* will be started before the end of May.

Charlotte, N. C., April.—A site for a build-

ing has already been purchased, substantial approval of the endowment plan has already been given by business men from the various States, and there is nothing in the way of its success.

Washington, D. C., May 30.—To complete the office building and home of the Southern Commercial Congress \* \* \* there has been brought into being the Southern Building Corporation, incorporated in Virginia and capitalized at a maximum figure of \$900,000.

Louisville, Ky., June 15.—The Southern Building Corporation has acquired \* \* \* one of the most desirable corners in Washington. Upon it will be erected one of the finest office buildings in the United States. The Corporation erects it for the Southern Commercial Congress at a cost of \$1,500,000.

Charlotte, N. C., August 3.—The Southern Building Corporation is to erect the building at Washington which will be the home and headquarters of the Southern Commercial Congress, and is, in fact, a part or a branch of the Commercial Congress. The Commercial Congress is to have three years in which to purchase the building, the purchase price to be the actual cost of the building, with 6 per cent. interest added for the benefit of the stockholders of the building corporation. The original plan of the Commercial Congress was to get enough donations to build the building, but this plan has been abandoned and the building corporation plan adopted in order that the building may be erected at once, while the Commercial Congress will have three years in which to get up the money.

New Orleans, August 25.—The Southern Commercial Congress members have already subscribed about \$450,000, and the organization was recently offered a loan of \$750,000 by one of the largest financial concerns in Washington. This means that all obstacles in the way of breaking ground for the office structure which the Congress plans to build have been removed.

Knoxville, Tenn., September 1.—Announcement is at last made through G. Grosvenor Dawe, managing director for the Southern Commercial Congress, that arrangements are nearly completed for the erection of a headquarters building for the organization to cost \$1,000,000. The ground has been purchased and the money secured.

Birmingham, Ala., September 6.—This corporation [the Southern Building Corporation] has been organized for the express purpose of erecting the building as a home for the Southern Commercial Congress, as well as for revenue. The building and ground will cost \$1,500,000. The only difference between this enterprise and a building corporation along the usual lines is that each stock certificate bears the following endorsement: "It is a condition hereof that the Southern Commercial Congress may, at its option, at any time within three years from the date hereof, take over this certificate by the payment to its owner and holder of the par value hereof and accrued interest at the rate of 6 per centum per annum."

The corporation, in its prospectus, cites a mortgage of \$900,000, preferred stock \$600,000 and common stock \$600,000, as bonus, and says: "To the subscribers to each two shares of preferred stock will be issued, as a bonus, one share of the common stock."

We have given these gleanings from statements put out at Washington or circulated from that city in furtherance of the "Southern Architectural Monument" scheme, the nearest approach to a reasonable business proposition of anything projected by the Southern Commercial Congress, in order that Southern business men may judge whether the undertaking can in the slightest degree benefit the South.

#### EXPORTING CORN TO MEXICO.

A telegram from Texas City, Tex., to the MANUFACTURERS' RECORD states that the Wolvin Steamship Line will probably handle corn under contract with the Mexican Government for shipment through New Orleans and Texas City. It is understood that the Mexican Government has made large purchases of corn in this country for the relief of some famine-stricken sections of that country and that the shipments will be made via Wolvin Line. Reports from Galveston state that the Mexican Gov-

ernment is buying between 5,000,000 and 15,000,000 bushels, but it is quite possible that this is an overstatement.

The Wolvin Steamship Line is controlled by A. B. Wolvin of Duluth, who is at the head of the Texas City Transportation Co., which is building the great docks and wharves at Texas City, recently described in full in the MANUFACTURERS' RECORD.

#### THE SEABOARD OUT OF THE COURTS.

After a receivership of less than two years the Seaboard Air Line has been restored to its stockholders. It is now, according to the official reports which have been given to the public, in an improved physical and financial condition, and its prospects for success and profits are bright. The ratio of operating expenses to gross earnings has been materially reduced, and the general effectiveness of the property is also strengthened. It is gratifying that the protection of the courts is no longer needed, and that the system is shown to be fully capable of meeting its obligations.

With the exception of the Atlantic Coast Line, the Seaboard is more of a purely Southern enterprise than either of the great railroads east of the Appalachian Mountains. The system was combined through the foresight and energy of Baltimore and Richmond men and capital. Its plan was broad and well considered, and the various links composing the chain of roads were judiciously selected with reference to their abilities to care for themselves as well as to bring business to the other portions of the system. And the links which had to be constructed to assure the company of independence and control of its own business until it was out of the possibility of interference from rivals were built with discretion, so that the combination of roads was rounded out in a manner which fitted it to care for business either along the coast or to interior points.

But for the panic of 1907 the Seaboard might have been able to withstand its trying experiences, yet it is doubtful whether it could then have been as speedily overhauled and put in good trim as it has been by the work of the receivers and the efficient operating men who have seconded their efforts in conducting its traffic. Receiverships are costly proceedings, but in the case of the Seaboard, as in many others, the work of the court's officers seems to have paid for itself by the speedy accomplishment of benefits which might otherwise—and probably so—have been strung out over several years, if they were ever secured. Considering the task they had before them, the financing which the reorganizers have provided for is not large, and it is to be expected that the system will prosper under it.

The receivership of the Seaboard has also demonstrated the intrinsic value of the system to any who may have had doubts concerning its worth. And it may be remarked that this endorsement of the foresight and wisdom of its designers is also testimony to the value of other properties in the South which may be lagging in development owing to lack of either enterprise or capital. For it is true that there are railroad plans of splendid possibilities in this section which are waiting only for the magic touch which will vivify and make them live, to the development of rich natural resources and the profit of those who construct the lines.

Moreover, the receivers are to be congratulated upon the success of their labors for the sake of the Seaboard it-



self, and the security-holders are likewise entitled to receive expressions of satisfaction for the results which have been accomplished in their behalf. The reorganized Seaboard system now has before it the opportunity to realize the predictions of growth and prosperity which were made concerning it when it was formed several years ago.

#### RAILROADS' VITAL INTEREST IN PUBLICITY WORK FOR THE SOUTH.

The people of the Pacific coast have learned the value of publicity through persistent, ceaseless work in behalf of their material upbuilding. What is known as the California Promotion Committee is constantly issuing bulletins showing the advantages claimed for California, and Southern papers are constantly printing much of this literature as though it were a matter of profound local interest. A leading Southern daily of last Saturday, for instance, had two long articles, one from San Francisco headed "Farmers' Paradise Out in California," and the other "1200 Acres Yield \$37,000 in Wheat" the latter bearing on the result of a wheat crop in one place in the Columbia River section of Washington. These facts are sent out by railroads and others on the Pacific coast interested in filling the Eastern papers with wonderful stories about the resources and progress of that section. They are pure advertising, but Eastern and Southern papers are publishing them as though they were invaluable news dispatches. Kept up year after year, they beguile the Southern man into believing that the Pacific coast offers far more advantages to him than his own country, while as a matter of fact nowhere on the Pacific coast are there such resources as are found in the South.

We hear a great deal about the wonderful apples of Washington, and people are made to believe that nowhere else is apple-growing so profitable. But in this week's issue of the MANUFACTURERS' RECORD are given some facts regarding apple-growing in a portion of West Virginia, where profits rivaling if not surpassing the best that Washington can show are being made. Similar conditions as to fruit-growing exist in other parts of the South. How many people, for instance, know that the celebrated Albemarle pippins grown in the Charlottesville (Va.) section are in such demand for the use of King Edward and his court that practically the entire crop is annually shipped abroad. This came about by reason of the fact that some years ago a Christmas present of Albemarle pippins was sent to Queen Victoria. These apples were so well received that out of this Christmas token came a great demand from English royalty and those who desire to follow royalty's lead for Albemarle pippins. An Albemarle farmer has this year netted \$26,000 on his apples, all of which were shipped direct to London, most of them bringing as high as \$10 a barrel. If the railroads traversing the apple-growing section of Virginia and West Virginia were as alert and as ready to spend money as are the railroads of Washington and Oregon and California, the wonderful profits made in apple-growing in the Virginias would be heralded all over America, and men everywhere would come to recognize that the ownership of an apple orchard in that portion of the South is even more desirable than the ownership of an apple orchard on the Pacific coast.

And as to orange-growing in Florida, that State, with its 6,000,000 boxes,

will this year, if its growers wisely handle their product, make many fortunes; but comparatively little will be heard about the individual profits of successful growers, while the papers of the East and the South will eagerly take from Pacific coast railroads every item of news sent out for the promotion of the Pacific coast as to earnings of apple or wheat or orange growers. The grapefruit industry in Florida, more interesting and more promising than any fruit industry on the Pacific coast, has almost limitless possibilities, but how many people know that Florida and the coast of Texas have a practical monopoly of grapefruit-growing in the United States and that the Pacific coast cannot successfully produce this fruit?

Suppose, for instance, that California or Oregon or Washington had produced a wheat crop rivaling in value and in profits the \$150,000,000 or \$175,000,000 cotton crop of Georgia. If such a thing had happened every magazine and every paper east of the Rocky Mountains would have been full of the story. But what railroad or what business organization in Georgia has spent as much as a thousand dollars to tell about it. Its importance would justify spending half a million dollars in making it known all over the world.

If ever a section was sleeping on its opportunities, or, as a New York capitalist said last year in a letter to the MANUFACTURERS' RECORD, "sleeping on billions of undeveloped values," surely the South is doing that thing. There are billions of undeveloped value in the South. There are tens of thousands of opportunities for men from outside whose coming would be to their own good and to the good of the South. The value of Southern railroad properties could be doubled by the proper handling in the broadest possible publicity work of the South and its resources; but never in the history of the country have such splendid opportunities been presented to any railroads and so niggardly availed of as by most Southern roads. The MANUFACTURERS' RECORD fully realizes the disadvantages under which many of them have labored, but the trouble is that most of them do not understand the South, do not comprehend what is being done, and are absolutely, hopelessly ignorant as to what the West and the Pacific coast are doing and how they are doing it.

Southern railroads are not today doing, as a whole, as broad or intelligent work in attracting men and money to the South as they were doing 20 or 25 years ago, nor are the Southern people themselves going at the matter with the vigor and enthusiasm which then characterized their work. The people and the railroads alike are to blame. It is time to wake up. We are sleeping on billions of value, unutilized and undeveloped, and in this shape as worthless to the South and to the country as though these resources were in Africa. It is time to stop chasing rainbows; time to stop running after conventions; time to stop making believe we are at work by supporting or attending organizations which are of no value. It is time to get to work, and the railroads and the people alike need to be doing it, or else the drain of population to the Pacific coast will continue.

#### KENTUCKY GOOD ROADS.

Early returns of last week's vote in Kentucky indicated that the amendment intended to promote highway improvement in that State had been de-

feated. Later returns were the basis for a hope that the amendment might pull through. Kentucky needs good roads, and the hope should be realized.

#### LOUISIANA'S REGRET.

Thoroughly alive to the advantage of making known the facts of Louisiana progress, the Lake Charles *Daily American* says in referring to our Good-Roads Special:

The MANUFACTURERS' RECORD of the current week contains a splendid series of articles regarding good roads in the South, showing the amount of work already done, the number of miles of improved highways to be constructed next year, and giving valuable hints on road-building resulting from actual experiences in the several States. \* \* \* We are certain that this is not the fault of the MANUFACTURERS' RECORD, except in so far as its editors were unfortunate in choosing the sources from which they expected to get their information. Louisiana has in the Governor an excellent business agent; her greatest need at this time is a good press agent.

The MANUFACTURERS' RECORD's exposition of the status of work accomplished, under way or planned in the South was based upon reports made directly to it by county officials of the several States, writing at our request. Our desire was to have official statements for the purpose of insuring accuracy. Where replies were not made to our original letters of inquiry a second communication was had with the county officials, and all replies received up to the day of publication were published. No Governor of a Southern State was neglected in our inquiry, and no one regretted as much as we the absence of some of the Governors from the pages of letters from such officials. As good-roads plans have developed in Louisiana and other Southern States we have made mention of them in our regular departments, and we have had special editorial comments upon a campaign in which Governor Sanders has been an efficient leader. We are glad that the Lake Charles *Daily American* found our special issue of such interest, and we share with it the regret that some of its public officials did not avail themselves of the opportunity we urged upon them of having their State fully represented in that issue.

#### FARMERS' NATIONAL CONGRESS.

Thirty States were represented by the attendants upon the five days' sessions of the Farmers' National Congress at Raleigh, N. C. One day was devoted to a trip of inspection of some of the distinctive industries closely related to the agriculture of Eastern Carolina, and many of the addresses turned upon the agricultural opportunities of the South. Among the speakers were Governor W. W. Kitchin of North Carolina; British Ambassador James Bryce; Secretary James Wilson of the National Department of Agriculture; Hilary A. Herbert of Washington, formerly Secretary of the Navy; Colonel Benahan Cameron of Raleigh, President of the Congress; Joshua Strange of Marion, Ind.; President Paul Barringer of the Virginia Polytechnic Institute; Dr. S. A. Knapp of the National Department of Agriculture; Congressman J. Hampton Moore of Philadelphia; John Skelton Williams of Richmond, Va.; Dr. Andrew M. Soule, Dean of the Georgia Agricultural College; Chief Justice Walter Clarke of North Carolina; Prof. W. F. Massey of North Carolina; M. V. Richards, Land and Industrial Agent of the Southern Railway; Congressman J. H. Small of North Carolina; Prof. H. E. Stockbridge, editor of the *Southern Ruralist*, Atlanta; Clarence H. Poe, editor of the *Progressive Farmer*, Raleigh;

Gilbert Pearson, Secretary of the National Association of Audubon Societies; Prof. F. L. Stevens, Prof. C. L. Newman and Prof. W. N. Hutt of the North Carolina College of Agriculture and Mechanic Arts, West Raleigh; Dr. J. L. Burgess of the North Carolina Department of Agriculture; Prof. C. B. Williams, Director of the North Carolina Experiment Station; Mrs. A. E. Whitaker of Washington, D. C.; Mrs. W. N. Hutt of Raleigh; Dr. Joseph Hyde Pratt, State geologist, and Prof. Franklin Sherman, Jr.

#### TELLING OF OPPORTUNITIES.

Lewis, Hubbard & Co., wholesale grocers of Charleston, W. Va., one of the active factors in the development of that city, in a letter to the MANUFACTURERS' RECORD under date of November 4 say:

"Please insert an advertisement, wording it as you may see fit, advertising the fact that Charleston, W. Va., is the center of a large jobbing business, and that there is a splendid opening here at this time for a wholesale queensware establishment. Refer any inquiries to the Secretary of the Chamber of Commerce, Charleston, W. Va., and send the bill to us for the insertion. Repeat for four weeks in succession."

This is a business letter. It is to the point, and is an interesting illustration of how a big house, such as this, is willing to spend money for advertising the advantages of its town as a location for a wholesale house in another line of business. There are thousands of business men in the South who know that their towns have special advantages for certain lines of trade or industry. Either directly through following the example of Lewis, Hubbard & Co. or else through their local trade organization, they could co-operate in making known these advantages throughout the land.

In advertising, "glittering generalities" do not count so much as specific facts as to enterprises for which any particular community offers exceptional advantages. Last week, for instance, the Southern Railway Co., through M. V. Richards of its Immigration and Industrial Department, had a dozen or more advertisements in the "Classified Opportunities" department of the MANUFACTURERS' RECORD, presenting brief statements as to the opportunities for different enterprises in different parts of the South. In one case \$15,000 to \$20,000 was needed as additional capital for a glass plant upon which \$40,000 had been expended; in another location there was available for development a water-power, where the surrounding territory offered good advantages for manufacturing; another was the opportunity for developing a valuable medicinal springs property in East Tennessee, where there was a good opening for a resort hotel, and in a university town of 10,000 to 12,000 people, with many unusual advantages, an opportunity was presented for the building of a hotel to meet the need for better accommodations in a growing and prosperous community. These advertisements also included opportunities for the building of a cotton mill in North Carolina; the establishment of a foundry where one was much needed; the building of a flour mill in a wheat-growing district, and the opportunity for a department store in a flourishing North Carolina town, where local trade made a demand for such an institution. Among other matters covered in these various advertisements was a particular tract of virgin timber in Mississippi; a mica mine in Virginia; an iron ore property in North Carolina, and a number of other opportunities to purchase or to establish new enterprises.

The Rock Island-Frisco System, through

M. Schuller, industrial commissioner, St. Louis, has recently issued a 175-page book entitled "Opportunities," in which brief statements are made in regard to trading or industrial enterprises most needed at every town along that great system.

Specific work of this kind, if rightly carried forward, is of very great value. It is not a thing to be done spasmodically, but persistently and with good judgment. In every town in the South a study should be made of what are the particular needs of the community and for what mercantile or industrial enterprise the greatest advantages are available. These facts, having been gathered with care and judgment, should be made known not only throughout the State in which the town may be located, but be widely advertised throughout the rest of the country. Thousands of men are always looking for some opportunity to engage in business. They do not know the best locations for what they have in mind, and so they stumble around in the dark, often making mistakes. Thousands of towns are needing new industrial and other business enterprises, and because they do not make a study of these facts and make them known they fail to catch the attention of those who are looking for business openings.

Haphazard work is out of place. It is not enough to say that Smithville or Jonestown is a good location for a cotton mill, or a hotel, or a furniture factory, or an iron furnace, or any other particular enterprise. The reasons which make Smithville or Jonestown a good location should be clearly known and honestly and truthfully stated. Some towns are good for one thing, and some for another. It is a wise place that knows what can be worked out and the reasons for it, and then intelligently pursues the development of the community along safe and sane lines.

As indicating what an active, hustling concern can do in locating new enterprises, an advertisement in the MANUFACTURERS' RECORD calls attention to what Kimbrough & Co., in Atlanta, have accomplished in three years. They say that in that time they have located the Gulf Refining Co., with an expenditure of \$100,000; the Germofert Fertilizer Mfg. Co., with an investment of \$200,000; the Huitt Brass & Mfg. Co., \$40,000; the Empire Printing & Box Co., \$150,000; the Wood Preserving Mfg. Co., and the Union Box & Lumber Co., \$75,000; the Binder Picture Frame Co., \$40,000, and the J. I. Case Threshing Machine Co., and have recently sold a manufacturing location adjacent to that city at a price of over \$100,000.

Atlanta is an enterprising, hustling place of many advantages, but there are a thousand towns in the South that have better prospects ahead of them than Atlanta had 30 or 40 years ago—a thousand towns that ought to be able to accomplish in the next quarter of a century fully as much as Atlanta has done. And if the business men in every town in the South had the hustling spirit which has created Atlanta, there would be an industrial development in the South commensurate with the wonderful advantages of this section.

#### THE COTTON MOVEMENT.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight during the first two months of the present season was 3,861,202 bales, an increase over the same period last year of 109,590 bales. The exports were 1,918,373 bales, an increase of 114,581 bales. The takings were, by Northern spinners, 371,162 bales, a decrease of 130,810 bales; by Southern spinners, 447,353

bales, an increase of 25,480 bales. In the first 66 days of the season the amount brought into sight was 4,296,754 bales, an increase of 92,820 bales. The exports were 2,202,742 bales, an increase of 196,771 bales. The takings were, by Northern spinners, 451,686 bales, a decrease of 37,837; by Southern spinners, 487,353 bales, an increase of 22,535 bales.

#### SOUTHERN CORN.

Preliminary figures of the corn crop in this country in 1909 show that the total production in the whole country was 2,767,316,000 bushels, an increase of 98,665,000 bushels over 1908. The production of leading corn States in the South was 679,314,000 bushels, a decrease of 52,245,000 bushels under 1908. Comparison of these States for two years is made in the following table:

States.	1909. Bushels.	1908. Bushels.
Alabama.....	43,646,000	44,835,000
Arkansas.....	52,002,000	54,065,000
Georgia.....	62,161,000	53,750,000
Kentucky.....	103,472,000	84,823,000
Louisiana.....	51,198,000	33,398,000
Mississippi.....	41,499,000	45,845,000
North Carolina.....	48,686,000	50,166,000
South Carolina.....	37,041,000	29,223,000
Tennessee.....	75,174,000	83,080,000
Texas.....	117,107,000	201,848,000
Virginia.....	47,328,000	50,050,000
Total.....	679,314,000	731,559,000
United States.....	2,767,316,000	2,668,651,000

While there was a small falling off in several States, the Texas crop was 84,000,000 bushels short by reason of the drought, which cut short all Texas farm products. Georgia shows an increase of 8,400,000 bushels; Kentucky, 18,600,000 bushels; Louisiana, 17,300,000 bushels, and South Carolina, 7,800,000 bushels. The figures for Maryland and West Virginia are not yet available.

#### ARKANSAS RICE.

This year's crop will net the Arkansas rice growers about \$950,000, according to the *Gazette of Little Rock*, which says that in September 1,000,000 pounds of this year's crop were sold in the State and 2,000,000 pounds were shipped out of it, and that by February 1 the entire crop of 25,000,000 pounds grown on 28,000 acres of land will have been disposed of. It is believed that the rice acreage in Arkansas will next year be nearly double that of this year. And yet only about one-sixth of the land available for profitable rice culture in the State would then be under cultivation.

#### FOREST FACTS.

##### What the Project for Appalachian Mountain Reserve Means.

Mr. John H. Finney, secretary of the Appalachian National Forest Association, which has its headquarters at Washington, D. C., says:

"The backbone of the entire eastern portion of our country is the Appalachian range. Under various names, as the White Mountains, the Adirondacks, the Catskills, the Blue Ridge, Great Smoky, etc., this beautiful chain of mountains extends from New England to Georgia. From these mountains rise all of the eastern streams, and in its 75,000,000 acres lies the natural home of the hardwood of the nation. It has been proposed for many years past that the Government should acquire by purchase an area of perhaps 5,000,000 acres in the Southern Appalachians, extending from Pennsylvania to Georgia, and to put this area into a National Forest Reserve. It is obviously a thing that the States cannot themselves do, and it is equally plain that it is something which the National Government must finally do as a duty it owes to itself.

"Many persons throughout the South who are directly interested in the proposed

Southern Appalachian National Forest, provision for which will probably be enacted into law at the coming session of Congress, are asking what the Southern Appalachian project means, or what will be the effect of the establishment and maintenance of a national forest along the crest of the Appalachians? This is an entirely natural question, and anyone who does not seek some answer to it is singularly apathetic.

"In the first place, a national forest upon its creation comes immediately under the administration of the Forest Service, one of the bureaus of the Department of Agriculture—the department which has done so much for the Southern States. On a national forest all resources can be developed as elsewhere, with this difference: the resources are husbanded and perpetuated instead of being used up. For example, instead of wasteful lumbering, with destruction to the woods through fire and careless logging, the forests will be so managed that each lumbering operation will leave them in better condition to produce trees in the future.

"The individual home-owner will not be disturbed in his possession of the ground he now owns and cultivates, and the counties, in lieu of the taxes on lands that are held by the Government, will receive 25 per cent. of all forest revenues. In the Western national forests, where this plan has been in operation for some time, the counties have received a greater income from this source than they ever did from taxes. This means at once better roads and better schools without any increase in the tax rate for the individual. There are no movements that mean more for the South's advancement than good roads and good schools, and national forest administration means the securing of both.

"Under the national forest system, too, no wall or barrier is placed around the forest lands under Government control; on the contrary, every incentive is offered to have the land permanently yield its highest returns, and thus give the greatest good to the greatest number for the longest possible time. Thus, to the home-owner in the forest it means the protection of his lands and buildings from the menace of forest fires and the destruction wrought by excessive cutting that will allow the run-off from bare slopes wash away his fields or destroy their fertility. To the lumberman it means an assured perpetual supply of timber that may be obtained at a fair stumpage price—a price which he himself establishes by a bid in the open market.

"The Southern Appalachian National Forest will mean better conditions for the individual and better opportunities for the community in its immediate vicinity. Further than that, and beyond its immediate section, its influence for good will be far-reaching; for it will perpetuate the South's great hardwood timber wealth; it will render permanently useful the marvelous endowment of water-power, so necessary in the upbuilding and maintaining of an industrial prestige; it will secure soil fertility and soil retention on steep slopes, and it will make for health and beauty for all time.

"Without the Southern Appalachian Forest maintained as it can be by the National Government, the South will lag behind those other sections of the country that already have forest protection and forest perpetuation assured. But with a great national forest as the backbone of its timber supply and an influence of far-reaching effect, the South will immediately step into the forefront of the conservation movement that is going to do more than any other one thing for the future greatness of the nation."

#### Security Cement & Lime Co.

All details connected with the consolidation of the Maryland Portland Cement Co. and the Berkeley Limestone Co. into the Security Cement & Lime Co., as partially outlined in the MANUFACTURERS' RECORD of October 14, have now been consummated. The authorized capital of the company is \$3,000,000, of which \$2,250,000 is outstanding and \$750,000 in the treasury. Of the \$2,250,000 outstanding capital, \$1,000,000 is common stock, \$600,000 is 7 per cent. accumulated preferred stock and \$650,000 first mortgage 6 per cent. 20-year sinking fund gold bonds. These bonds are secured by an absolute first mortgage on all of the property of the Security Cement & Lime Co., and have been sold to local bankers.

The purpose of the bond issue is to supply the necessary funds for increasing the present output of the cement plant at Hagerstown, Md., from approximately 250,000 barrels to a capacity of over 700,000 barrels of Portland cement annually, and to build upon the Berkeley Limestone Co.'s property additional lime-kilns, hydrating lime plants and stone crushers, thereby largely increasing the output of fluxing stone, lime and lime products.

Construction work has already been started, and contracts for all fixed equipment have been placed, including that for the cement plant, as well as the line, hydrating lime and crushing plant. The lime plant will have a capacity of 2000 barrels of lump lime daily; the hydrating lime plant 20,000 tons annually; the crushing plant, for supplying stone for general crushed-stone purposes, a capacity of 100,000 tons annually and the crushing plant for handling fluxing stone alone a capacity of 300,000 tons annually.

The plant of the Maryland Portland Cement Co. has been in operation about a year. Its brand of Portland cement, "Security," is well established, and has been used with satisfactory results on many principal engineering and architectural works in Baltimore, Washington and elsewhere, and it has been accepted by the Harbor Board, Sewerage Commission, Department of Public Improvements and Water Board of Baltimore city; by the District Government of the District of Columbia, and by the United States Treasury, War and Navy Departments.

The Berkeley Limestone Co.'s property is situated at Martinsburg, W. Va., on the Cumberland Valley Railroad and the Baltimore & Ohio Railroad. The property consists of about 305 acres, owned in fee, and an adjoining 140 acres held under perpetual lease, with an option to purchase. This combined tract is over one mile in length, and across its entire length contains about 200 feet strata low silica Martinsburg fluxing stone. Adjoining the fluxing stone stratum are other much larger strata of limestone and shale, suitable for the production of various lime and stone products and Portland cement of the highest grade. The low silica fluxing rock is found only in few localities, and is essential, on account of its exceptional purity, in the "open-hearth" furnace process of steel manufacture. This property is equipped with a complete electrically-driven quarry outfit and crushing plant of 800 tons daily capacity.

The freight rates on the products of both plants have recently been so revised that the output of the Security Cement & Lime Co. will be on as favorable a basis, as far as Baltimore, Washington and its other selling territory is concerned, as any other plants now built or contemplated.



## Southern Opportunities Through English Eyes.

[Special Correspondence Manufacturers' Record.]

New York, November 8.

"The South certainly has occasion for much gratulation over the advent into the Birmingham district of the Rothschilds and other English capitalists," declared a Wall Street authority in discussing with me the recent visit to this country of Messrs. Grenfell, Schiff and Robinson of London. The authority referred to is a man long familiar with the leading operations in the street, one who keeps informed on developments the country over, and who enjoys confidential relations with foreign as well as American financiers. He met Mr. Cecil Grenfell on the return of the visitors from Birmingham last week, prior to their departure for Europe, and from that gentleman he received an even more enthusiastic report as to Southern opportunities than Mr. Grenfell was inclined to give out for publication when he talked with the MANUFACTURERS' RECORD correspondent at Birmingham last week. Mr. Grenfell, however, thought he has given to the MANUFACTURERS' RECORD as much of a public expression of his opinion as he considered proper in advance of his report to the English interests he represents, and he asked to be excused from making further statements in the way of additional interviews for any American newspaper.

In the Birmingham interview Mr. Grenfell stated that he was astonished at what he had seen beyond words to express, and that the trip had been a regular eye-opener to him and other members of the party who had never been in the South before, and who were unprepared for the energy and business activity that were found down there and the richness of the natural resources. I understand that on this point there is hardly reason for exaggeration, for the great wealth of mineral resources in the Birmingham district impressed the visitors as little short of astounding. It is also true that the tremendously active business and industrial life of not only Birmingham and the South generally, but of the whole country, deeply impressed the visitors. The almost continuous line of well-built cotton mills along the Southern Railway, electrically lighted at night, and revealing, as they passed along, the fact that the mills were running without shutdown the 24 hours through, were hardly less astonishing than the activity in the iron and steel industries in the Birmingham district. And wherever they went the enormous requirements of this country for structural steel in the construction of buildings was a revelation and a marvel. In New York Mr. Grenfell was shown the steel framework of the new building at 33d street and Sixth avenue, now in course of construction by the Gimbel Bros., and when told that the contract for the structural steel for that building alone amounted to 40,000 tons, he expressed his amazement. He said such a demonstration as that of the steel demands in this country is really inconceivable to the European investor in iron and steel companies, as they have no such buildings abroad, and steel requirements there are confined mainly to rails and bridge materials.

The tremendous advantage the South will unquestionably receive from the investments, as well as investigations, made by the interests the visitors represent lies in the fact that really glowing reports on the whole Birmingham situation and the condition of the country generally will undoubtedly be made to the vastly important London principals, with the result that a new interest can hardly fail to be aroused in those high places in all South-

ern properties and opportunities for investment.

Mr. Cecil Grenfell, a brother-in-law of the Duke of Marlborough, enjoys very close relations with the most important banking interests in England, including the Rothschilds; Mr. Ernst H. Schiff of the house of Bourke & Schiff is a nephew of Jacob H. Schiff of Kuhn, Loeb & Co., and Mr. John Robinson is not only a very wealthy man in his own right, but represents important and influential interests in London.

The mere statement of the visitors' financial connections is sufficient to demonstrate the potential as well as present value of their interest in the South. And it is particularly fortunate that the present investment should have been made in properties of such undoubted merit. On the whole, the entire Birmingham district may be said to have now arrived at a state of development where experimentation, in management and otherwise, is practically over with, and from the United States Steel Corporation down the operations in the district have been placed on a very high plane of efficient and economical productiveness.

The properties in which the English visitors are interested are those of the Southern Iron & Steel Co. With most valuable iron-ore and coal lands, and with a number of plants in operation, the Southern Steel Company went into the receivers' hands at the time of the October panic of 1907. Mr. W. W. Miller, an attorney of New York, of the well-known firm of Hornblower, Miller & Potter, representing a number of clients who had interests in the company, was called on to effect a reorganization. Through experts' reports he reached the conclusion that some \$4,000,000 in cash would be required to put the properties in such a state of efficiency as would enable them to make money at all times, good or bad. A distinguished reorganization committee, consisting of James T. Woodward, chairman; Otto T. Bannard, Robert B. Van Cortlandt, Walter T. Rosen, Franklin Q. Brown, W. P. G. Harding and Cornelius Vanderbilt, endorsed the plan and agreement proposed, and the reorganization as planned was carried out. Mr. Miller was well acquainted with Mr. Grenfell, and through these and other affiliations of members of the committee the \$4,000,000 required was secured, a substantial part of which was English money. While the Rothschilds have taken a considerable share of the company's securities, it was designedly brought about that quite a number of other British interests should become identified with the properties.

In going over the situation it was established in Mr. Miller's mind, as the cardinal principles of success, that given required ore beds and coal supplies, with proper physical equipment, the crux of the whole matter was efficient management, and he has therefore not only re-lined furnaces and practically rebuilt all the plants of the company, but has secured a management of which he is proud, it being considered by him the best possible to be obtained from the top to the bottom.

The furnaces are now in operation at Trussville and at Chattanooga, with a combined capacity of 390 tons a day, which are turning out a high-grade iron. Another furnace at Gadsden will go in blast in December, as will the six open-hearth furnaces at Gadsden, and the steel plant at the same location will also begin operations then. An entirely new wire, nail, fencing and rod mill at Gadsden, said to be without a superior in the

United States, will go into operation in February, with a daily capacity of 350 tons of finished product.

Altogether the properties of the Southern Iron & Steel Co. and its subsidiary companies consist of wire and rod mill, 350 tons daily capacity; steel plant, with 12,000 tons steel monthly capacity; four furnaces, monthly capacity 22,000 tons pig-iron; 918 coke ovens, monthly capacity 30,000 tons coke; six coal mines, monthly capacity 88,000 tons coal; three brown-ore mines, monthly capacity 25,000 tons brown ore; five red-ore mines, monthly capacity 29,000 tons red ore; three limestone quarries, producing ample supply for furnaces; plant sites, 2090 acres; coal lands and rights, 43,613 acres; red-ore lands and rights, 21,142 acres; brown-ore lands and rights, 20,580 acres. With further development work the output of both coal and ore mines can be considerably increased, so that there will be avail-

able a surplus of coal for sale in the open market. At the time reorganization plans were under way it was regarded as a conservative estimate that when in full operation the net annual revenue from the properties would average \$1,200,000, without considering the earnings from the sale of coal in the open market. At the present prices of iron and steel and their products the net revenues will greatly exceed this estimated figure. The authorized issue of securities of the new company are \$10,000,000 20-year gold bonds, 4 per cent. for four years and 5 per cent. thereafter; \$7,000,000 non-cumulative 6 per cent. preferred stock and \$10,000,000 common.

It is an interesting collateral fact, by the way, as showing the industrial development at Chattanooga, that the requirements of local manufacturers take practically the entire output of the Chattanooga furnace, amounting to about 200 tons a day.

ALBERT PHENIS.

## SCARCITY OF GOOD COKING COAL.

By CHARLES CATLETT.

[Written for the Manufacturers' Record.]

In spite of the wonderful strides which are being made in the application of electricity to the production of finished forms of metal and the rapid extension of the use of gas of various kinds, nothing has yet occurred to threaten even remotely the supremacy of coke as the principal agency in the reduction of the various metals from their ores, and its consumption is increasing with great rapidity. It is increasing more rapidly than the production of the metals themselves, because the average improvement in engineering skill has not yet, at least, offset the tendency of ores to become leaner and the coal used for coking to become less satisfactory. One no longer sees in the trade papers accounts of how the records for small coke consumption in the iron industry have been broken. The files of such papers have been silent on the subject for a long time.

There are such vast quantities of coal in this country that even the average coal man does not realize how little of it is of the best quality of coking coal, and it behooves us to take careful stock of our coking coal, as we were tempted to do a short time ago of our iron ore. It is quite true that a seam often shows great regularity of characteristics over a large territory, but, on the other hand, it not infrequently will change within a comparatively short distance from a good coking coal to an inferior one.

We know very little as to what the coking properties of a coal are due; analysis and laboratory tests tell us something, not much, and coals which apparently are good coking coals often produce results which are most unsatisfactory commercially.

The better grade of Connellsville coal has been spoken of as "a fool's coking coal"—it gave such excellent results in the beehive ovens, however it was handled. But now, when the more advanced lines are pointing to retort ovens, the Connellsville coal does not answer. It has too much volatile matter and too much spongy coke is produced.

The Pocahontas coal has been spoken of as a great coking coal, and chemically it is excellent—so high in fixed carbon and so low in sulphur as to give excellent results in practice, but its structure is poor and the waste in handling is great. It has too low a volatile; it is hard to keep up the heats. Mix them? Yes, that is what is being done. The Steel Corporation will mix the Pocahontas with a high-

er volatile coal to get just the proportion required.

The engineer will step in here, as he has done elsewhere, and extend the adaptability and the life of our raw materials. The oculist enlarges the scope of the vision with glasses, but he is not yet offering new eyes, nor is the engineer making new coking-coal fields. The good coking coal should be determined, labeled and held for that purpose, and not squandered for purposes for which other coal will answer. It will all be needed.

Staunton, Va.

### REFLECTED AT PITTSBURG.

Its Iron and Steel Interests and Southern Development.

[Special Cor. Manufacturers' Record.]

Pittsburg, Pa., November 5.

The Pittsburg district under present conditions is making 26 per cent. of the pig-iron of the country, and it moves freight to get a ton of pig-iron, two tons east to west and two tons west to east. The district originates more tonnage than any other area of like size in the world. At present the volume of rail and water freight is 125,000,000 tons per annum. A number of steel industries hereabouts that have been working two shifts will go on three shifts by January. Operators of Pittsburg industries that turn out products worth \$700,000,000 per annum say that most of the plants will be at full capacity by February. In the iron and steel trades the larger degree of occupation is for account of the agricultural and manufacturing industries. The railroad interest, which formerly gave 50 to 60 per cent. of the degree of occupation to the steel mills, is now taking but 30 to 40 per cent. of what the steel plants produce. The geographical center of the iron and steel trades is still here, as it has been for many years, but the great development of open-hearth steelmaking and kindred industries in the West and South is slowly changing the center.

Pennsylvania is, as usual, far and away in the lead of the output of minerals rated by States. This year's production is estimated at \$625,000,000. Coal is high up in the first place. Mining costs of anthracite and bituminous coal go on increasing year by year in most of the mining districts. Several mining companies near Scranton have to pump 20 tons of water for each ton of coal brought up. One series of hard-coal mines pumps the Lackawanna River flowage seven times in each year out of their properties.

The timbering of hard and soft coal

mines in this State is an item of cost that mounts higher year by year. To provide the coal mines of Pennsylvania with timbering, each year sees the trees cut down from 350 square miles of land. The time was when most of this timber was cut near the mines. Today the timber is brought long distances. It was cheap coal that made Pittsburg; then came the iron industry, and that attracted many other industries until the single item of crude iron is quite small as compared with Pittsburg's production of finished goods in metals. Higher prices for most of the kinds of products made hereabouts are to rule soon after the beginning of the year. Most of the lately booked contracts for railroad materials and for the wants of the makers of agricultural implements and supplies are all for as nearby deliveries as makers will condition.

The position of pig-iron is consolidating in a way that makes it plain to consumers that a good deal of Southern iron will be brought in, as was the case in the last boom, when Pittsburg consumed enormous tonnages of Southern iron and procured Bessemer pig from as far away as China. In the height of the last boom the natural consumption of pig-iron for eight months was 108 per cent. of production, Great Britain and Germany supplying the demands over home production. It is estimated by the principal industrial corporations here that they have on their books for Southern account orders that aggregate between \$50,000,000 to \$60,000,000.

Steel-rail mills in Pennsylvania are not doing so large a degree of business with the South as conditioned former years. That business is going to Southern rail-makers. Ninety-five per cent. of the rail business on hand in this State is for renewals. The trend of specifications is for heavier sections than ruled for most of the business booked at the beginning of the boom in 1904. A number of roads that used to consume largely in 65-pound rails have gone to the use of 80-pound, and others that used 85-pound rails on main trackage have gone to the use of 100-pound, and in some cases to the use of 112-pound rails on sections that carry the main burdens. Among the most advanced railroad operators in this State the opinion is becoming general that the use of 150-pound rails is not far away on lines that traverse densely-populated districts, and that with the rails of that weight will come a broader gauge and much larger locomotives and freight cars than are found today on the greater trunk lines.

For account of Southern trade there is a high degree of activity hereabouts in industrial machinery, and a notable liveliness in demands from Southern cities and towns that have well-equipped electric-light and power stations, for small units of power in motors, ranging from one horse-power down to one-quarter horse-power. One electric motor making concern here has orders on hand for 21,000 small electric motors, of which a considerable number are for the principal Southern industrial centers. Traveling engineers and commercial travelers for Pittsburg district manufacturing interest, whose work is in the Southern States, say that one of the remarkable developments of business in the South is the number of small industrial plants, employing from 10 to 50 mechanics, that are springing up in nearly all parts of the South. This is a phase of development that is giving a great deal of business to boiler, engine, motor and machinery makers.

A dispatch from Boston announces that the Clyde Steamship Co. will begin on December 1 the operation of a direct line of steamers weekly between Boston and Galveston.

**GOFF BUILDING**  
CLARKSBURG, W. VA.  
MILBURN HEISTER AND CO.  
ARCHITECTS, WASHINGTON, D. C.



THE GOFF OFFICE BUILDING AT CLARKSBURG, W. VA.

This \$175,000 structure, in course of erection, will be enlarged by \$60,000 addition; nine stories high; steel-frame construction; all contracts awarded; owner, Judge Nathan Goff of Clarksburg; architects, Milburn, Heister & Co. of Washington.

**IN PIEDMONT CAROLINA.**

**Concord's Advantageous Location for Industries.**

[Special Cor. Manufacturers' Record.]

Concord, N. C., November 1.

In 1840 the first cotton mill here was built. Today there are 20 mills, with an equipment of 4572 looms and 195,448 spindles. The first cotton mill was crude, but it showed the necessity and practicability of manufacturing the raw material where grown.

Concord is the seat of Cabarrus county, and is rich in agriculture and minerals. It has a population of 12,000, and has a steady and healthy growth. Its manufacturing plants are in a flourishing condition. Its four complete finishing plants enables Concord to lead in finished cotton goods. An annual payroll of \$1,000,000 in manufacturing enterprises is an indication of the growth of this Piedmont town. Electricity has solved the power problem for Concord. Located advantageously between the two largest hydro-electric plants in the South, power can be had at once to suit large or small consumers. This advantage, combined with Concord's nearness to the raw materials, offers many opportunities to manufacturers, homeseekers and investors.

The lands contiguous to Concord are rich for agriculture, the soil responding readily to cultivation. Cotton, grain, fruit and truck are successfully grown, but not in sufficient quantity to supply local demands. Here is a fine opportunity for the farmer. Cabarrus hills are rich in gold, silver and copper. It is not generally known that this town is a leader in towels and cotton blankets. Three banks, with total assets of \$1,478,769.58, and with three building and loan associations, are strong factors in the upbuilding of this place. Concord has a complete

sewer system, it is supplied with deep well water, 15 miles of water mains and 145 hydrants; a municipal lighting plant, with 90 arc lights uniformly distributed throughout the city, together with incandescent lights and 17 miles of arc line. Fifteen churches, representing many denominations; three graded-school buildings, several private schools, the Jackson Training School for Boys and a State institution are the educational advantages offered here, while three flouring mills, one furniture factory, ice plant, foundry and machine shops, cotton-oil mill, three woodworking plants are some of the manufacturing advantages Concord enjoys. Concord needs and welcomes other manufacturing plants wherein wood enters; also cotton and woolen mills, creameries and cheese factories. Mayor C. B. Waggoner, in speaking of the growth of Concord, says:

"We have here an ideal location, in the very heart of the Piedmont section, on the main line of the Southern Railway system, a country rich in agriculture and minerals. Our recently organized United Citizens' Club, of which Mr. Joseph C. Fink is secretary, has been formed with a purpose to let the outside world know just where we are and what we have to induce people and capital to come this way. We feel assured of the fact that, having looked us over, many visitors will remain; for, with out great natural advantages, location, health and attractive environments, one cannot help but be assured of a great future for Concord, where all the elements conspire to make this section of the State one of progress, advancement and material growth."

Concord, with a population of 12,000, is marching along with a momentum as if backed by a population twice its size, for here will be found a public spirit and a civic pride which is altogether most commendable and praiseworthy.

ALEXANDER HELPER.

**Exhibits at Little Rock.**

Among the exhibits at the National Convention of the American Society of Municipal Improvements at Little Rock, Ark., this week are:

The Texas Company, Houston—Asphalt, paving materials, asphalt for roads and oil for macadam roads.

Southern Bitulithic Co., Nashville—Method of constructing bitulithic pavements.

Standard Asphalt & Rubber Co., Chicago—Asphalt for pavement and for filler for brick pavement.

Arkansas Brick & Manufacturing Co., Little Rock—Paving Brick, cement, drain tile and shale.

Big Rock Stone & Construction Co., Little Rock—Trap rock before and after crushing.

Blair Milling Co., Little Rock—Cement. Post Pipe Co., Texarkana—Vitrified sewer pipe.

International Creosote Co., Texarkana—Creosoted paving blocks.

Kettle River Quarries Co., Minneapolis and St. Louis—Laboratory to show the methods of treating and testing creosoted blocks for paving.

Barrett Manufacturing Co., New York. Coal-tar products.

Memphis Paving Co., Memphis—Asphalt pavement.

Coffeyville Brick Co., Coffeyville, Kans. Vitrified paving brick.

Pittsburg Brick Co., Pittsburg, Kans.—Vitrified paving brick.

Southern Clay Co., Chattanooga—Vitrified paving brick.

Little Rock Railway & Electric Co., Little Rock—Track construction, brick and creosoted block, all Southern material.

Southern Sand & Material Co., Little Rock—Sand for filtration.



## WEST VIRGINIA APPLE INDUSTRY INCREASING.

[Special Correspondence Manufacturers' Record.]

Martinsburg, W. Va., November 8.

With a most successful and well-attended Apple Show and Carnival the Berkeley County Horticultural Society celebrated here last week the most successful season in apple-growing in Berkeley county, West Virginia. The crop this year was about 120,000 barrels, and the growers received between \$350,000 and \$400,000 for the yield. The net profits on the crop are conservatively estimated to be at least \$200,000. These figures are in themselves indicative of the growing importance of this industry throughout the county. This is further emphasized by the statement that one orchardist received over \$50,000 for his apples, several received over \$20,000 and a number over

and from expression of opinion made were much impressed with the high quality of the fruit shown. A large number of cash prizes were offered by the Horticultural Society, and the leading merchants of the town also contributed some of their wares for prizes, while the Martinsburg Board of Trade offered a large silver challenge cup to be awarded to the exhibitor showing the five one-bushel boxes which represented, in the opinion of the judges, the ideal pack of Berkeley county's highest quality fruit. The winner of the prize, which this year was H. L. Smith, will retain possession of the cup for one year and have his name engraved on it, and if won three years in succession will become the permanent owner of it. The apples

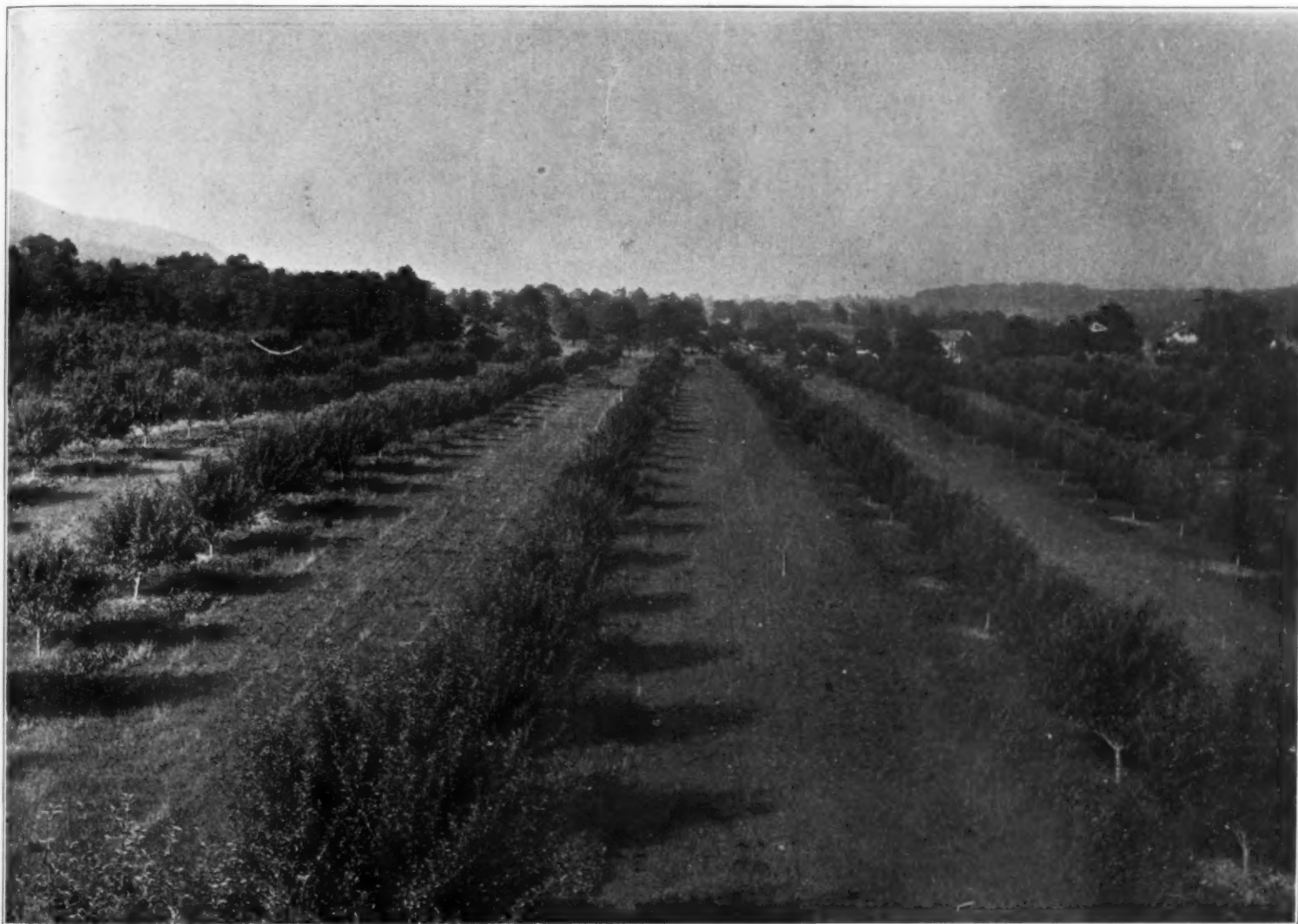
State authorities and various horticultural institutions are doing much to teach growers to raise better fruits and to conquer the diseases which threaten them. This newer or economical science, he added, is having a broad effect in thoroughly acquainting farmers how to do their work better and to achieve more profitable results. From his observation of the fruit shown here, Mr. Hays stated that he was convinced of the fact that apple-growing in Berkeley county is conducted along right lines. He also talked at some length on the subject of vocational education and the importance of consolidated rural schools.

One of the meetings was devoted to the experiences of individual growers concerning different phases of their work, and these proved especially valuable, in that they pointed out to the less experienced ways and means of overcoming difficulties.

never more clearly demonstrated than this year, because those who sprayed obtained fine crops, while those who did not failed. Having accomplished such desirable work, the Society determined to endeavor to improve the standard of packing in the county, and it was mainly with this idea in view that the apple show was inaugurated, and most of the principal prizes were given for the best packs of high-grade fruit in both barrels and boxes.

One of the important outgrowths of the show this year will be the formation of a co-operative association of some 10 or 12 representative growers to establish a standard pack somewhat along the lines of the famous Hood River pack of the Northwest. It is felt that by this means the standard of Berkeley county apples among buyers will be raised and better prices secured for the fruit.

An important adjunct to the fruit-



A SEVEN-YEAR-OLD ORCHARD OF GRIMES GOLDEN APPLE TREES.

\$10,000, while the returns per acre of bearing orchards in many cases exceeded \$400, and in some cases was as much as \$1200 per acre.

This was the first show that the Society has ever held, and although all of the growers of the county were not represented by exhibits, sufficient of the prominent ones were there to give a comprehensive idea of the scope of the industry. It is planned to hold these shows annually, and from the success of this first one it is safely predicted that all of the leading growers will be in line at the next one.

The exhibition was especially well attended, there being large crowds on hand at all times from the opening of the doors at 10 o'clock in the morning until 10 o'clock at night. Visitors were present not only from this apple-growing section, but also from other sections of the country,

were judged by two experts connected with the United States Department of Agriculture. An interesting and important part of the show was the several types of modern spraying machines exhibited, also the various chemical mixtures used. The large number of people always surrounding these exhibits evidenced the desire of becoming fully posted as to the latest methods for scientifically and properly treating the trees.

During the show several meetings of the Horticultural Society were held, and these were exceptionally well attended by the growers, who showed deep interest in the addresses made. The principal one of these was made by Assistant Secretary of the United States Department of Agriculture W. M. Hays. Mr. Hays pointed out that to grow good apples the work must be done scientifically, and that National and

During this meeting Professor Tenney of the Department of Agriculture made an especially strong talk on co-operation and the importance of packing the fruit honestly, and predicted if these things were done they would add 25 per cent. to the value of their products within the course of a year. Professor Tenney's talk made a deep impression on the growers.

The Berkeley County Horticultural Society was organized about 10 years ago, its object at that time being to fight the different pests that were threatening the destruction of the orchards. The splendid apples of today are largely the result of the efforts of this Society and the aggressive manner in which its members fought the pests. According to President Alexander Clohan of the Society, the value of spraying the trees with various chemical mixtures for this purpose was

growing business of this section and a necessary part of it is an ideal cold-storage plant operated by Rothwell & Co. This plant, which has a capacity of 33,000 barrels, is said to be one of the finest cold-storage plants for the purpose in the country. It was designed and built especially for storing apples, and one of the reasons for its splendid reputation is the fact that it is said not to vary one degree in temperature. Inasmuch as prices at picking time are not always favorable, the value of such a plant in the immediate vicinity of the growing section can be readily appreciated, because it enables the buyers to hold the crop and put it on the market gradually so as not to overstock at any time and cause a slump in prices. Moreover, this storage plant has enabled wholesale buyers to pay more for fruit, and those having bearing orchards have conse-

quently realized much larger profits. Rothwell & Co. are also very large buyers, and distribute Berkeley county apples throughout all parts of the country.

An interesting incident may be related to show the wide distribution of Berkeley county apples. This year the Horticultural Society had printed a card which was placed in every barrel of apples shipped out. This card requested that if the apples were liked to write the Berkeley County Horticultural Society for further information and an illustrated booklet on apple-growing in the county. Although but a short time has elapsed, replies have been received not only from all parts of this country, but also from England and Scotland. These returns were read out at one of the meetings of the Society, and not only created a great deal of enthusiasm, but also impressed the growers attending with the great possibilities before them. The result of this happy

was Jonathan Thatcher, who planted one of the first commercial orchards of any size in 1865. Five hundred trees were set out in various varieties, and so well have they been taken care of by his sons that nearly all of them are still bearing profitably. These men were among those who blazed the way, and when it was later discovered that the soil and climate of this section was especially suited to raising the finest quality of apples in the country, and that with proper attention the insects and fungus diseases which injured the fruit and trees could be eradicated, the industry has gone forward rapidly and is bringing handsome returns to all who are engaged in it.

Running through the length of Berkeley county is an elevated ridge of land known as the Apple Pie Ridge. This ridge, which is 20 miles in length and about one mile wide, extends through in Virginia. The soil on the ridge is a fine sand shale, with

proper ingredients necessary to aid the young trees to attain their full growth and become large producers. At first small hand spraying machines were used, but as these have gradually been perfected the growers in this section have been quick to adopt the latest methods, and today most of them are using small power spraying equipment run by gasoline engines and mounted on portable carriages.

It is estimated that in the county altogether about 2000 acres are laid out in apple orchards of the bearing age, and it is said that the number of growing trees which will reach the bearing age within the next five years aggregates 150,000. As the industry is steadily expanding, it is fully believed that the next 10 years will see crops harvested valued at millions instead of hundreds of thousands of dollars today.

These brief references give some idea of the character and scope of what has been

including what is known as drops, culls or cider apples. These trees occupied about one-half an acre, and he received for the 326 barrels nearly \$1000.

The J. N. Thatcher Company has 32 acres containing 1030 apple trees of the York Imperial, Grimes Golden and Mammoth Black Twig varieties. These trees are young ones, three-fifths of them being 10 years old and two-fifths 13 years old. The company had a crop of 4000 barrels of first-grade fruit, for which it received over \$12,000 f. o. b. freight station near the orchard.

John W. Stewart has an orchard containing about 16,000 trees, less than one-half of which are of the bearing age. From the bearing trees, the oldest of which was 10 years, he secured between 6000 and 7000 barrels of first-grade apples this year, and received for them about \$3.40 a barrel f. o. b. cars in orchard. In a few years, he states, he will have an output of at



PORTION OF EXHIBIT OF BERKELEY COUNTY'S DIFFERENT VARIETIES OF APPLES.

thought will be to thoroughly acquaint consumers with the origin of the apples, and thereby to stimulate an increasing demand for those coming from Berkeley county.

While apples have been grown for some years commercially in this and adjoining counties, it has only been within the past 15 years or so that any great attention has been given to this industry. The pioneer fruit-grower of this section was W. S. Miller of Berkeley county, who 60 years ago planted the first commercial orchard. Mr. Miller gave close attention to the problems of fruit-growing, and was largely responsible for the orchard development of the county. His sons followed in his footsteps, and one of them, John M. Miller, has very extensive orchards and is generally known as the "Apple King." Mr. Miller is said to be one of the largest, if not the largest, individual apple-growers in the United States.

Another one of the other earlier growers

is a rich clay subsoil. Here are located most of the leading orchards, and here the apple attains a high state of cultivation. All of the orchards, however, are not located on this ridge, as there are other portions of the county containing soils equally as good for apple-growing. The climate in this section is especially well adapted to fruit-growing, this being evidenced by the fact that in the whole history of the industry there has never been a crop failure due to adverse weather conditions.

The present generation of apple-growers are fully alive to the importance of spraying the trees with proper chemical mixtures to offset the ravages of insects and fungus diseases. With the aid of the United States Department of Agriculture and the State experimental station the growers have not only learned how to spray scientifically, but the absolute importance of spraying to secure good, sound and healthy fruit. They have also learned the value of using fertilizers containing

accomplished as a whole in apple-raising in this one county, but the value and importance of the industry can perhaps be more clearly understood and some more definite idea secured by references to some individual results.

John M. Miller, previously referred to as the "Apple King," has about 500 acres set out in apples, containing about 20,000 trees, divided proportionately as follows: Forty per cent. York Imperial, 40 per cent. Ben Davis and 20 per cent. Northwestern Greening, Mammoth Black Twig and Arkansas Black varieties. From 160 acres of bearing trees he secured this year 15,000 barrels of first-grade apples, which he sold for over \$45,000. From a certain 23-acre section he sold in 1907, 3600 barrels; in 1908, 2500 barrels, and 1909, 4300 barrels, and the three years' output netted him \$20,000. The productivity of some of his trees is evidenced by the fact that from 21 trees in two solid rows he secured this year 326 barrels of good sound fruit, not

least 50,000 barrels annually. Mr. Stewart is one of the younger men engaged in the industry, and he has been one of the most progressive in the matter of scientific and modern orcharding, the result being that he has one of the finest and healthiest orchards in the county. In order to secure a good grade of labor Mr. Stewart had erected, adjoining his orchard, an especially planned building for housing and feeding his employees. This building contains comfortable quarters, and also has an individual electric-light plant installed. Here he houses and feeds from 75 to 150 men, who receive, in addition to board and lodging, \$1.75 to \$2 a day wages. For his individual use Mr. Stewart has also established a cooperage shop having a capacity of 50,000 barrels in 60 days. He is also interested as controlling owner in an orchard of 7200 apple trees in Illinois and 100,000 apple and 100,000 peach trees in Connecticut, but said that the one in Berkeley county



was the most profitable per acre. His knowledge and close study of the chemical ingredients necessary to offset the ravages of insects and fungus diseases led him to form a company known as the American Horticultural Distributing Co., which manufactures various chemical preparations used in spraying trees. In addition to the main plant of this company, which is at Martinsburg, two other plants are located at Chattanooga, Tenn., and Arlington, Mass., and a fourth is to be established at Kansas City, while there are 14 distributing agencies for the output, all of which indicates the value and broad use of his preparations. The various ramifications of Mr. Stewart's interests are cited in some detail in order to show how the energies of a young man in this section, properly applied, have broadened and ex-

speaking, farm lands containing soil suitable for apple-growing are valued at about \$200. Of course, some are sold for less and some bring more than this, but the fluctuation above or below the \$200 figure depends upon the exact location of the land, the number of trees it already contains and its proximity to shipping points. These values, it may be stated, cover such lands as are offered for sale, and not those of the large apple-growers. An estimate of the value of their farms, if judged by the returns received from them, would far exceed the \$200 figure, because most of them receive each year in net profits more than this amount for each acre of apple-bearing trees.

Perhaps the most famous apple of this section is the celebrated variety known as Grimes Golden. This apple, which has a

Horticultural Society are Messrs. Alexander Clohan, president, and H. L. Smith, secretary.

The committee in charge of the Apple

Show and Carnival included Messrs. J. T. Thompson, chairman; N. T. Frame, clerk; Gray Silver, H. L. Smith, J. W. Stewart and C. W. Thatcher. WM. H. STONE.

## TO DEVELOP SOUTH AMERICAN TRADE.

[Special Correspondence Manufacturers' Record.]

Southern Railway Co.,

Washington, D. C., November 8.

The publication of the letter on the importance of direct and regular steamship communication between our South Atlantic and Gulf ports and the Latin-American countries, which I addressed, under date of July 8, 1909, to the editors of Southern newspapers, resulted in the receipt by me of a large number of letters,

ciently regular to afford constant employment to the vessels which engage in it. They seldom make round trips with cargoes in both directions. For instance, in the year ended June 30, 1908, there were imported through the South Atlantic and Gulf ports 245,415,955 pounds of coffee, largely from Brazil, and some rubber and other Brazilian products were brought in through these same ports, but the vessels bringing them did not obtain return car-



A SEVENTEEN-YEAR-OLD YORK IMPERIAL APPLE TREE WHICH PRODUCED 45 BUSHELS THIS YEAR.

tended his usefulness as a progressive orchardist and business man.

An interesting fact stated by several of the growers was that the revenue from the apples known as drops, culls and cider apples is sufficient to pay for the picking and packing of the entire crop of the various orchards.

These few references give some comprehensive idea of the splendid returns which are possible from apple-growing in this especially favored section, the result being that farm lands throughout the apple-growing belt are steadily increasing in value. A striking example of this is indicated in the prices received for a 160-acre farm located not in Berkeley county, but in the same apple-growing belt. This farm some few years ago sold for \$11,000. A short time afterward it was resold for \$17,000. At its next sale it brought \$22,000. The next time it changed hands it jumped to \$42,000, while the present owner recently refused \$65,000 for it, or at the rate of over \$400 an acre. Generally

beautiful golden color when ripe, had its origin in West Virginia, being first produced many years ago by Thomas Grimes, from whom it derives its name. This well-known apple has achieved its highest state of perfection in the Apple Pie Ridge section. The standard commercial apple, however, is the York Imperial, which is a large red apple. This variety is grown in larger quantity than any other, and it usually sets prices for the crop. Other leading varieties include the Ben Davis, Black Twig, Winesap and Northwestern Greening, all of these being red apples, with the exception of the Northwestern Greening, which is a large green apple.

On the last day of the carnival a splendidly arranged street parade was arranged. In this parade were a number of beautiful floats, some of which were symbolic of different phases of the apple-growing industry, while others were of a historic character.

The officers of the Berkeley County

showing a widespread interest in this subject throughout the South.

This correspondence revealed the fact that some very important manufacturing interests are ready to take advantage of opportunities to extend their trade in this direction by shipments through Southern ports. This information and statistics of existing commerce indicate that, with regular lines in operation and with systematic and co-operative efforts on the part of our manufacturers and merchants, a considerable trade may be built up. In fact, something may be done in this direction even in advance of the establishment of regular lines.

The Southern ports, in endeavoring to build up trade with South America, should rely principally on the development of new business and on the more systematic handling of the irregular traffic now moving in both directions between them and South America by vessels chartered for single cargoes. There is a considerable volume of this business, but it is not suffi-

goes, but sailed in ballast to North Atlantic ports or with cargoes to Europe, and this notwithstanding the fact that Brazil in that same year bought from the United States products to the total value of \$19,490,077, including 3,470,818 yards of cotton goods, 742,896 gallons of cottonseed oil, 306,871 barrels of flour, manufactures of iron and steel to the value of \$5,945,082, and other articles, some proportion of which could advantageously be shipped through Southern ports. In like manner we imported through Southern ports, principally from Chile and Peru, 82,165 tons of nitrates, but the vessels bringing them in seldom if ever obtained return cargoes, though the West Coast countries are steadily increasing their purchases of American goods.

The best customer the United States has in South America is Argentina, to which country our exports in the fiscal year ended June 30, 1909, amounted to \$33,712,505, including 1,510,317 yards of cotton goods, 513,357 gallons of cotton-

seed oil, manufactures of iron and steel to the value of \$7,875,789, furniture to the value of \$214,891, agricultural implements and farm machinery to the value of \$4,309,223—manufactured principally in localities from which shipments can be made conveniently through Southern ports—and a long list of other articles. Our imports from Argentina in the last fiscal year amounted to \$22,230,182, the principal items being wool and hides. Probably little Argentine wool is used in the South, but Southern tanneries use South American hides to a considerable extent, and their use may be expected to increase, as there is no duty on them under the new tariff law. At present these hides come in through the North Atlantic ports almost entirely, and are shipped to Southern tanneries either all rail or by rail and water. Some of them even go by way of Europe. In one case that came to my notice hides for a North Carolina tannery were shipped from Argentina to Antwerp, across the ocean again to New York, and thence by rail to the tannery. In another case a Southern tanner bought 20,000 hides in Mexico, but found that, on account of shipping conditions, he had to have them carried from Vera Cruz, Mexico, to New York, and thence by rail to his tannery.

In the fiscal year ended June 30, 1908, 76 steam vessels entered at our ports south of Cape Charles, Virginia, with cargoes from South American ports, and 70 cleared with cargoes for South America. While this trade, as a whole, is thus nearly balanced, it is not so as to individual ports, as is shown by the following table:

	Entered.	Cleared.
Norfolk and Portsmouth, Va.	1	15
Newport News, Va.	1	3
Charleston, S. C.	15	1
Savannah, Ga.	15	1
Fernandina, Fla.	4	2
Apalachicola, Fla.	2	2
Pensacola, Fla.	7	8
Mobile, Ala.	1	31
Pearl River, Miss.	8	8
New Orleans, La.	54	1
Galveston, Tex.	1	70
Total	76	70

The principal commodities carried by the steamers which cleared from Southern ports for South America were lumber, naval stores and coal.

The first step in the direction of developing more regular service might be taken by systematic efforts, both in the Southern ports and in South America, to secure return cargoes, so that vessels could make round trips and be encouraged to stay in this service. Then, with knowledge in advance that a certain vessel was to arrive at a Southern port with coffee from Brazil or nitrates from the West Coast, it would be more practicable to concentrate a return cargo; and, in the same way, if it were known in advance that a vessel from a Southern port would arrive on a certain date at Buenos Aires, there would be a better chance of getting a return cargo, including hides for Southern tanneries. This employment of vessels of known capacity for round-trip service would obviate one of the practical difficulties encountered in trying to obtain cargoes for tramp steamers, which is that, when the exact carrying capacity of a ship is not known, there is danger of not getting a full cargo and having to pay higher charges than if the vessel were loaded to its capacity or of concentrating at the port more goods than it can carry, and then, in order to prevent undue delay, the surplus must be reshipped by rail or coastwise steamers to some other port, where it can go by a regular line.

While some increased business might be built up by thus systematizing the use of irregular steamers, the establishment of regular lines is of supreme importance. At the outset it might be found impracticable to develop enough traffic to sup-

port regular lines with but a single port of call at each end of the voyage, but there are various combinations that might be made. Vessels might stop at two or more ports of the United States, discharging part of their cargo and receiving part of a return cargo from each. In the same way vessels engaged in the River Plata trade might also call at Brazilian ports. In some cases ports in the West India Islands might advantageously be included in a round-trip voyage. Thus Cuba buys large quantities of sun-dried beef, known as "jerked beef," from the River Plata countries. The vessels carrying this beef to Cuba get no return cargoes from that island, but only a short voyage would be required to bring them to a South Atlantic or Gulf port for such a cargo.

If this trade is to be developed to the utmost and is to be made of the greatest possible value to our Southern people, earnest efforts must be made to build it up. One thing that might be suggested is the establishment at our Southern ports of houses devoted to handling export business directly from those ports. Such a house handling Southern cotton goods, for instance, would not only be of assistance in developing the Latin-American trade, but would make direct exportations to the Orient and other parts of the world as well. Another thing of importance is direct representation in the countries in which it is sought to sell goods and a careful study of the wants of each particular market. This is particularly desirable in selling such articles as cotton goods and furniture, in which different markets require different grades and styles. The importance of this is shown by the decline of the exports of cotton goods from the United States to Brazil. The Brazilian market for these goods was formerly one of great promise. In 1905 it took 9,689,055 yards of American cotton goods. Each year since has shown a steady decline, until in the last fiscal year the amount was only 2,453,460 yards, a decrease of nearly 75 per cent. in four years. This is partially explained by the fact that Brazil, under a high protective tariff, is building up a cotton-manufacturing industry, using native cotton. But English mills in most of the years of this period increased their shipments to Brazil by having their expert representatives on the ground to study the needs of the market and to supply those grades of goods not made by the Brazilian mills. In the fiscal year ended June 30, 1908, Brazilian purchases of American cotton goods amounted to but \$373,545, as compared with purchases of British cotton goods for the calendar year 1908 to the value of \$8,357,766.

The total purchases of American cotton goods by all the South American countries for the fiscal year 1908 amounted to but \$2,760,231. In the calendar year 1908 the value of cotton goods bought by these same countries from the principal European countries were as follows: United Kingdom, \$38,330,205; Germany, \$13,832,000; France, \$5,702,000; Italy, \$8,332,764, and Spain, \$2,030,282. In other words, the United States sells to these countries less than 4 per cent. of the total value of the cotton goods it buys from the six countries above mentioned. This poor showing cannot be improved merely by supplying better steamship service, important as that is. If a larger share in the South American trade is to be had, it must be sought earnestly and be won in the face of sharp competition, otherwise it will be impossible to develop sufficient traffic to warrant any improvement in the present limited ocean transportation service.

There is much practical information of great value as to foreign markets, the tar-

iff laws of foreign countries, etc., that can be obtained from the State Department, the Bureau of the American Republics, the Bureau of Manufactures and other Government offices in Washington. All this information is readily accessible to the Southern Railway Co., and, with a view to being of practical assistance to our manufacturers and merchants desiring to develop export business, this company will take pleasure in securing and supplying any of this information that may be desired.

Correspondence on this subject should be addressed to the president of this company.

Yours very truly,  
W. W. FINLEY,  
President.

### CHICAGO CEMENT SHOW.

#### Space Allotted to One Hundred and Fifty Exhibitors.

At the drawing for space at the third annual Cement Show, Chicago, February 18-24, 1910, in the offices of the Cement Products Exhibition Co., 115 Adams street, Chicago, the entire main floor and annex space in the big Coliseum was taken. This is the only instance where the entire available exhibition space has ever been taken so far in advance of the time of the show. This condition points to the widespread interest in the show and indicates that from the exhibitors' standpoint the Chicago exhibition has become exceedingly popular.

About 185 companies had filed applications before the first drawing, and the 50,000 square feet of floor space was assigned to 150 of these. The rules of the drawing were such that as each name was announced the exhibitors was permitted to select the location and amount of space he desired. On account of the heavy demand for display space, the Cement Products Exhibition Co. announces that room will be made in the second floor of the annex and in the balcony to accommodate those who want to be represented with exhibits. It is the intention to provide special music for the second floor annex, and it is reported that the Association of American Portland Cement Manufacturers contemplates a large continuous moving-picture show in this part of the building. Mr. P. H. Wilson, secretary of the association, in co-operation with the Government officials at Washington, are making a number of moving-picture films showing actual concrete construction. This feature of the show is expected to create a great deal of interest.

The exhibitors who secured space in the first drawing are as follows:

The Advance Mixer Co., Jackson, Mich.  
Alpha Portland Cement Co., 204 Dearborn street, Chicago, Ill.  
American Cement Roofing Co., Columbus, O.  
American Contractor Publishing Co., 40 Dearborn street, Chicago.  
American Hydraulic Stone Co., Railway Exchange Building, Denver, Col.  
American Pulverizer Co., St. Louis, Mo.  
American Steel & Wire Co., 115 Adams street, Chicago.  
American System of Reinforcing, Chicago, Ill.  
Anchor Concrete Stone Co., Rock Rapids, Iowa.  
Architectural Stone Co., Cincinnati, O.  
Arrowsmith Concrete Tool Co., Arrowsmith, Ill.  
Ashland Steel Range & Manufacturing Co., Ashland, O.  
Association of American Portland Cement Manufacturers, Philadelphia, Pa.  
Atlas Portland Cement Co., 30 Broad street, New York, N. Y.  
Ballou Manufacturing Co., Belding, Mich.

Barrett Manufacturing Co., First National Bank Building, Chicago.

Barton System of Reinforced Concrete Construction, Medinah Building, Chicago, Ill.

Besser Manufacturing Co., Alpena, Mich.

Bolte Manufacturing Co., Kearney, Neb.

Brown Hoisting Machinery Co., Cleveland, O.

Cement Age, 30 Church street, New York, N. Y.

Cement Era, Monadnock Block, Chicago, Ill.

Cement Machinery Co., Jackson, Mich.

Cement Record, Kansas City, Mo.

Century Cement Machine Co., Rochester, N. Y.

Ceresit Waterproofing Co., 115 Adams street, Chicago, Ill.

Chain Belt Co., Milwaukee, Wis.

Chappelow, C. W., Munsey Building, Washington, D. C.

Chase Foundry & Manufacturing Co., Columbus, O.

Chicago Architectural Photographing Co., Marquette Building, Chicago, Ill.

Chicago Builders' Specialties Co., Chamber of Commerce Building, Chicago, Ill.

Chicago Cement Products Co., 3951 Lowe avenue, Chicago, Ill.

Chicago Concrete Machinery Co., Old Colony Building, Chicago, Ill.

Chicago Concrete Tool & Specialty Co., 56 Fifth avenue, Chicago, Ill.

Chicago Monolith Construction Co., 3936 Lincoln avenue, Chicago, Ill.

Chicago Portland Cement Co., Stock Exchange Building, Chicago, Ill.

Clark Publishing Co., Myron C., Chicago, Ill.

Climax Company, 131 La Salle street, Chicago, Ill.

Clinton Wire Cloth Co., 30-32 River street, Chicago, Ill.

Clover Leaf Machine Co., South Bend, Ind.

Collins & Co., W. A., First National Bank Building, Chicago, Ill.

Concrete Age, Atlanta, Ga.

Concrete Engineering, Caxton Building, Cleveland, O.

Concrete Publishing Co., Newberry Building, Detroit, Mich.

Corrugated Bar Co., St. Louis, Mo.

Cowham System of Portland Cement Mills, Jackson, Mich.

Cropp Concrete Machinery Co., 84 La Salle street, Chicago, Ill.

Crown Point Spar Co., Inc., 21 North 4th street, New York, N. Y.

D. & A. Post Mold Co., Three Rivers, Mich.

Decorators' Supply Co., Archer avenue and Leo street, Chicago, Ill.

De Smet, Geo. W., Chamber of Commerce Building, Chicago, Ill.

Dexter Bros. Company, 105 Broad street, Boston, Mass.

Diamond Concrete Machinery Co., Chamber of Commerce Building, Chicago, Ill.

Dietrichs' Clamp Co., Little Ferry, N. J.

Dodge Manufacturing Co., Mishawaka, Ind.

Dunn & Co., W. E., 1328 Grand avenue, Chicago, Ill.

Dunn Manufacturing Co., Allegheny, Pa.

Engineering News, Monadnock Block, Chicago, Ill.

Engineering Record, Old Colony Building, Chicago, Ill.

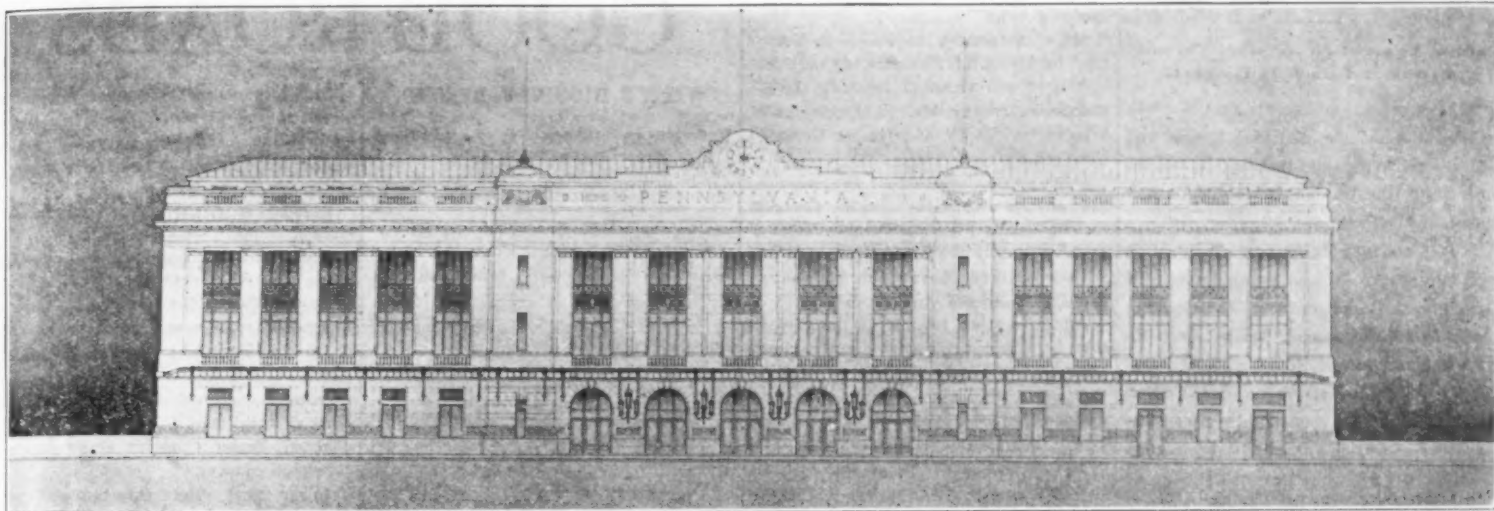
Eureka Machine Co., Lansing, Mich.

Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.

Foot Concrete Machinery Co., 184 La Salle street, Chicago, Ill.

Fillmore Machinery Co., 512 Race street, Cincinnati, O.





FRONT ELEVATION OF THE NEW NORTHERN CENTRAL RAILWAY PASSENGER STATION, TO BE USED BY ALL PENNSYLVANIA RAILROAD TRAINS ENTERING BALTIMORE.

Garden City Sand Co., Chamber of Commerce Building, Chicago, Ill.  
 Gauntt Manufacturing Co., F. G., Fort Wayne, Ind.  
 German-American Portland Cement Works, Chicago, Ill.  
 Gould, E. E., 3937 Grenshaw street, Chicago, Ill.  
 Groh Bros., Kendallville, Ind.  
 Grumman Concrete Machinery Co., Zanesville, O.  
 Hall-Holmes Manufacturing Co., Jackson, Mich.  
 Hayden Automatic Block Machine Co., Columbus, O.  
 Hill Clutch Co., Cleveland, O.  
 Hohn Cement Brick Machine Co., Indianapolis, Ind.  
 Hough Company, Wm. B., Chicago, Ill.  
 Hunt & Co., Robt. W., The Rookery, Chicago, Ill.  
 Hydrolithic Cement Co., 138 Jackson Boulevard, Chicago, Ill.  
 Ideal Concrete Machinery Co., South Bend, Ind.  
 Illinois Improvement & Ballast Co., 115 Adams street, Chicago, Ill.  
 Inman Concrete Building Block Machine Co., Beloit, Wis.  
 Ironite Company, 84 La Salle street, Chicago, Ill.  
 Kelley Island Lime & Transport Co., Cleveland, O.  
 Kent Machine Co., Kent, O.  
 Kent Mill Co., 170 Broadway, New York, N. Y.  
 Kerlin Automatic Post Machine Co., Delphi, Ind.  
 Knickerbocker Company, Jackson, Mich.  
 Koehring Machine Co., Milwaukee, Wis.  
 Kramer Automatic Tamper Co., Peoria, Ill.  
 Lehigh Portland Cement Co., Cleveland, O.  
 Link-Belt Company, 39th and Stewart avenue, Chicago, Ill.  
 Lock Joint Pipe Co., 195 Broadway, New York, N. Y.  
 MANUFACTURERS' RECORD, Baltimore, Md.  
 Marblehead Lime Co., 55 State street, Chicago, Ill.  
 Marquette Cement Manufacturing Co., Marquette Building, Chicago, Ill.  
 Marsh Company, Old Colony Building, Chicago, Ill.  
 Mater Brothers Company, Washington street, Joliet, Ill.  
 McIlroy Belting & Hose Co., 129 North Canal street, Chicago, Ill.  
 Meacham & Wright Company, Corn Exchange Bank Building, Chicago, Ill.  
 Miracle Pressed Stone Co., Minneapolis, Minn.  
 Miles Manufacturing Co., Jackson, Mich.

Monolith Steel Co., Washington, D. C.  
 Moore & Son, W. D., Creston, Iowa.  
 Municipal Engineering & Contracting Co., Railway Exchange Building, Chicago, Ill.  
 National Fireproofing Co., 115 Adams street, Chicago, Ill.  
 Northwestern Expanded Metal Co., 84 Van Buren street, Chicago, Ill.  
 Ohio Ceramic Engineering Co., First National Bank Building, Chicago, Ill.  
 Overturf & Co., C. W., Dumont, Iowa.  
 Peerless Brick Machine Co., Minneapolis, Minn.  
 Raber & Lang Manufacturing Co., Kendallville, Ind.  
 Radford Publications, Medinah Temple, Chicago, Ill.  
 Raggle, Chas. A., 3219 South Park avenue, Chicago, Ill.  
 Raymond Concrete Pile Co., 135 Adams street, Chicago, Ill.  
 Rock Products, 325 Dearborn street, Chicago, Ill.  
 Ross & Co., J. A., 84 La Salle street, Chicago, Ill.  
 Sandusky Portland Cement Co., Sandusky, O.  
 Sanford Concrete Machinery Co., Toledo, O.  
 Sharon Steel Hoop Co., 115 Adams street, Chicago, Ill.  
 Sioux City Cement Machinery Co., Sioux City, Iowa.  
 Simpson Cement Mold Co., Columbus, O.  
 Skillins & Richards Manufacturing Co., 127 Fulton street, Chicago.  
 Smalley & Trulin, Panama, Iowa.  
 Smith Company, The T. L., Old Colony Building, Chicago, Ill.  
 Smith Wire and Iron Works, F. P., Lake street, Chicago, Ill.  
 Snell Manufacturing Co., R. Z., South Bend, Ind.  
 Somers Brothers, Urbana, Ill.  
 Standard Asphalt & Rubber Co., First National Bank Building, Chicago, Ill.  
 Standard Scale & Supply Co., 23-25 North Canal street, Chicago, Ill.  
 Sterling Pattern Works, Sterling, Ill.  
 Sterling Wheelbarrow Co., Milwaukee, Wis.  
 Stocker Concrete Material Washer Co., Highland, Ill.  
 St. Paul Cement Machinery Co., St. Paul, Minn.  
 Sturtevant Mill Co., Boston, Mass.  
 Svensen-Shuman Machinery Co., Bessemer Building, Pittsburg, Pa.  
 Taylor Iron & Steel Co., High Bridge, N. J.  
 Toledo Wheelbarrow Co., 35-37 River street, Chicago, Ill.  
 Troy Wagon Works Co., Chamber of Commerce Building, Chicago, Ill.

Trussed Concrete Steel Co., Detroit, Mich.  
 United Cement Machinery Manufacturing Co., Plain City, O.  
 Universal Portland Cement Co., 115 Adams street, Chicago, Ill.  
 United States Champion Cement Roofing Tile Co., 523 Locust street, Kansas City, Mo.  
 United States Gas Machine Co., Muskegon, Mich.  
 United States Gypsum Co., 200 Monroe street, Chicago, Ill.  
 Van Hook, F. P., Boise, Idaho.  
 Wabash Portland Cement Co., Detroit, Mich.  
 Waterloo Cement Machinery Co., Waterloo, Iowa.  
 Williams Company, David, 14 Park Place, New York, N. Y.  
 Williams Patent Crusher & Pulverizer Co., Old Colony Building, Chicago, Ill.  
 Wolverine Portland Cement Co., Coldwater, Mich.  
 Wisconsin Lime & Cement Co., Chamber of Commerce Building, Chicago, Ill.  
 Zeizer Brothers, Berwick, Pa.

#### NEW STATION AT BALTIMORE.

##### Pennsylvania Railroad Announces Plans for a Handsome Building on the Present Site.

The Northern Central Railway Co. (Pennsylvania system) has announced plans for its new Baltimore passenger station, which is to be built on the site of the present station between Charles and St. Paul streets north of Jones' falls. The present building and train shed will be removed.

The new building will be 60 feet wide and 275 feet long. The design is classical, and will be executed in stone, terra-cotta, brick and ornamental metals, with interior finish of marble, plaster, hardwood and leaded glass. The structure will be fire-proof and supported by a steel frame. It will consist of the station proper and two upper floors for the offices of the company.

The main waiting-room, 64 feet wide, 95 feet long and 35 feet high, will occupy the center of the street floor, which is nearly 20 feet above the track level. Adjoining it will be ticket offices, telegraph and telephone offices, news stand, retiring-rooms for men and women, respectively, lunch-room, dining-room, parcel and baggage-rooms. The entrance to the main waiting-room will be reached by walks and driveways from St. Paul and Charles streets, and the floor will be slightly above the level of Charles street. The waiting-room will be lighted by ornamental leaded glass sashes placed in the ceiling.

A covered lobby 330 feet long and 28 feet wide will extend along the track side

of the station and connect with Charles-street bridge, allowing passengers to go to and from trains without entering the building proper. An enclosed lobby 50 feet in width will extend across the seven passenger tracks, which will be 18 feet below the main floor of the station. This lobby will open into the main waiting-room of the station. Eight stairways will lead to the train platforms, which will be 20 feet wide and from 600 to 1100 feet long; the latter will accommodate a train of 15 cars. The platforms will be protected with ornamental steel shelters or canopies.

On the side of the building facing Jones' falls a driveway will be built between St. Paul street and Charles street, giving vehicles access to the street floor. Another driveway will lead from St. Paul street down to the track floor, which will contain the main baggage-room, Adams Express room, station master's office, employees' lockers, dining-rooms, Pullman commissary's rooms, kitchen and storerooms.

The driveways and walks around the building will be provided with heavy ornamental railings, with clusters of electric lights at intervals, and the unoccupied ground around the station will be planted with grass and shrubbery. Outside of the building at the St. Paul street end will be a large standing space for cabs.

The office floors will be reached by four elevators and two large stairways, giving access to each end of the building. There will be ample space in the two upper floors to accommodate all of the Baltimore offices of the company.

The scheme for the general improvements in connection with the building provides for many track changes, and in making them there will be installed both east and west of the station an entirely new modern system of automatic signals and interlocking switches.

The new station was designed by Kenneth M. Murchison of New York city, who designed the Lackawanna stations at Hoboken, N. J., and Scranton, Pa. Both of these terminals have attracted considerable attention on account of their architectural beauty. His plans were selected from eight submitted in competition. The committee making the selection was composed of Henry Walters, Michael Jenkins, Norman James, T. N. Ely, President James McCrea and Vice-Presidents Samuel Rea and W. W. Atterbury, with Wm. L. Baily as advisory architect.

The yearbook of the Wheeling (W. Va.) Board of Trade publishes in attractive form, with illustrations, a mass of valuable information about what the city has already accomplished in industry and about the nearby resources for even greater accomplishments.

## FOR AMERICAN WATERWAYS.

## Sixth Convention of the National Rivers and Harbors Congress.

In extending invitations to the Sixth Convention of the National Rivers and Harbors Congress at Washington, December 8-10, Hon. Joseph E. Ransdell, president, and J. F. Ellison, secretary, say:

"We solicit your earnest co-operation in our efforts to have every interest of your section, mercantile and municipal, represented by strong delegations. No State or section of States will have precedence over any other; no special river, harbor, canal or connecting channel improvement will be advocated over another. Experience and time have demonstrated that the policy advocated by the National Rivers and Harbors Congress is the only practical way to place river and harbor improvements upon the plane demanded by the commercial interests of the country. This national convention is called to assemble in Washington coincident with the assembling of the Sixty-first Congress in first regular session, and furnishes an unequalled opportunity to emphasize to the Federal lawmakers the demand of all friends of improved waterways from all sections of the country for a waterway policy that, put into effect, will benefit every deserving waterway in the United States.

"The National Rivers and Harbors Congress is the direct representative of all sections of the United States that have a meritorious claim for the improvement of a natural or artificial waterway. It advocates a waterway policy, not a waterway project, a policy that will provide regular and adequate appropriations of not less than \$50,000,000 annually to be spent upon the deserving waterways of the country, without regard to any special section or special project. It advocates, to furnish the funds, the authorization of bonds by the Government to the amount of \$500,000,000, to be sold from time to time in such quantities as may be necessary, the proceeds of same to be used exclusively in payment for such river and harbor work as shall be authorized by the American Congress, the provisions for the issuance of said bonds to be similar to those authorizing bonds for the Panama Canal."

## North Carolina Drainage.

The program of the second annual convention of the North Carolina Drainage Association at New Bern this week includes, in addition to addresses by the Mayor of New Bern, Congressman J. H. Small, President John Wilkinson of the association, Assistant Secretary W. M. Hays of the National Department of Agriculture, Josephus Daniels, editor of the *Raleigh News and Observer*, and others, the following papers:

"Co-operation as Only Practical Salvation of Drainage Problem," by Hon. S. S. Mann, Swan Quarter, N. C.

"Land Drainage from an Engineering Standpoint," by E. W. Myers, Greensboro.

"Is the Drainage of North Carolina Swamp Lands Practical?" Discussion led by Mr. Joseph Hyde Pratt, State Geologist, and Mr. A. B. Lukens of Moyock.

"Underdrainage for Lands in Eastern North Carolina," by Thos. W. Blount, Roper.

"Drainage in Eastern North Carolina," by R. E. Snowden, Snowden.

"The Railroads' Interest in Drainage," by Mr. Harry K. Wolcott of the Norfolk & Southern Railway.

"The Relation of Drainage to Forestry,"

by representative of the United States Forest Service.

"How to Interest the People in Drainage," by Mr. A. M. Simmons of Currituck.

"The North Carolina Drainage Law." Discussion led by Mr. J. O. Wright of Washington, D. C., and Herber Green of Newbern.

During the discussion of the question, "Is the Drainage of North Carolina Swamp Lands Practical?" information is to be given by representatives from the various drainage districts as to what is being accomplished in their district.

An interesting feature of the convention is a series of maps, charts, photographs and bulletins relating to drainage that have been issued by the bureau of drainage investigations of the United States Department of Agriculture. This collection will show the method of work in planning and carrying out a drainage proposition.

## Tobacco at Durham.

[Special Cor. Manufacturers' Record.] Durham, N. C., November 8.

The visit here last week of the National Farmers' Congress gave its members an opportunity to observe the greatest smoking tobacco industry in the world. The visitors went through the American Tobacco Co.'s two great factories. In the Bull factory, first visited, they saw 1,200,000 packages of tobacco being put up every day, and in the Duke factory, where cigarettes are made, two machines pinched them off at the rate of 875 a minute, 5,000,000 daily and 1,500,000,000 annually. Here they saw a customs officer superintending the revenue part of it and looking out for the Government's \$2,000,000 annual revenue from these two factories. They found that the company employs in its factories 2500 people, with a payroll of \$15,800 weekly, while the Golden Belt mills put up bags manufactured from the cotton run through another department of the Golden Belt, giving employment to 2000 more.

The spokesmen for the tobacco corporation showed that when the American Tobacco Co. was organized, rather the year 1886, there were 4,000,000 pounds of granulated smoking tobacco sold in the whole world, while Durham alone puts up 33,000,000 in bags and manufactures nearly 4,000,000 in cigarettes annually. In 1890, the year of the formation of the corporation, there were 60,000,000 pounds of flue-dried tobacco raised in the whole world in North Carolina, Virginia and South Carolina; now there are 200,000,000 in the same States and between 700,000,000 and 1,000,000,000 now over the world. The American Tobacco Co. had 418,000,000 of the 921,000,000 pounds last year under its manufacture and control. There were 1021 tobacco factories in the United States 19 years ago, but there are exactly three times that number now, 3065, with two to spare. W. T. Bost.

## A \$70,000 Acidulating Plant.

The MANUFACTURERS' RECORD is advised that the Consolidated Phosphate Co., Izzie Bashinski, president, Dublin, Ga., will invest \$70,000 to establish an acidulating plant with a daily output of 100 tons of acid phosphate. From \$15,000 to \$20,000 will be the cost of the buildings, and the acidulating equipment will cost about \$50,000. The company's buildings will include a main structure, about 100x400 feet, of ordinary construction.

The Tennessee River Improvement Association at its meeting last week at Hariman urged provision by Congress for the canalization of the Tennessee River to Knoxville and of the Clinch River to Coal Creek, and for the improvement of other tributaries by open-channel work.

## GOOD ROADS

## WEEK'S HIGHWAY RECORD.

## Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

## Bonds Voted.

Green Cove Springs, Fla.—City voted \$45,000 street, sidewalk, water and light bonds.

Hillsboro, N. C.—City issued \$10,000 street-improvement bonds.

Newport, Ky.—City voted \$100,000 street-improvement bonds.

Spottsylvania, Va.—Spottsylvania county voted \$100,000 road-improvement bonds.

Wilmington, N. C.—Aldermen authorized sale of \$100,000 street-improvement bonds.

## Bonds to Be Voted.

Fort Pierce, Fla.—St. Lucie county votes December 1 on \$200,000 road and dock bonds.

Jackson, Ga.—Butts county votes December 11 on \$15,000 road-improvement bonds.

Maudiville, La.—City considering \$20,000 road and breakwater bonds.

Obion, Tenn.—City will vote on \$15,000 street and sidewalk bonds.

## Contracts Awarded.

Ashtand, Ky.—City awarded contract for paving, guttering, etc., to cost \$90,000.

Birmingham, Ala.—City awarded contract for paving to cost \$45,000.

Burlington, N. C.—City awarded contract for grading and macadamizing to cost \$25,000.

Durant, Okla.—City awarded contract for rock asphalt paving on two blocks of streets.

Ensley, Ala.—City awarded contract for sidewalk paving.

Huntsville, Ala.—City awarded contract for one and one-half miles granitoid block paving.

Lexington, Ky.—City awarded contract for paving sidewalks with concrete, for gutters, etc.

Norfolk, Va.—City awarded contract for 5000 linear feet of granite curbing.

Oklahoma City, Okla.—City awarded contract at about \$419,000 for paving about seven miles of streets.

Pascagoula, Miss.—Jackson county awarded contract for road improvements.

St. Petersburg, Fla.—City awarded contract for hard surfacing one mile of road.

## Contracts to Be Awarded.

Asheville, N. C.—Buncombe county will construct one mile of sand-clay road as experiment.

Clintwood, Va.—City opens bids December 1 for grading, etc., on road to Wise county.

Greenville, S. C.—City will macadamize North street at cost of \$1500.

Gulfport, Miss.—Harrison county will repair 20-mile road damaged by recent storm.

Jackson, Miss.—Hinds county will expend \$2000 to construct one mile of road.

Lexington, N. C.—Davidson county authorized expenditure of \$2500 for road construction.

Oklahoma City, Okla.—City opens bids November 22 for grading, paving, curbing and draining Walker avenue; paving to be sheet asphalt on cement concrete base; also opens bids on same date for grading several avenues and streets.

Providence, La.—City opens bids November 15 for paving 24 blocks of sidewalk.

Rome, Ga.—City will reconstruct

Fourth avenue and lay concrete sidewalks on both sides of street.

Vicksburg, Miss.—City opens bids December 6 for paving three streets.

## OUR GOOD-ROADS ISSUE.

## Commendations from Experts of Its Varied Contents.

From different quarters the MANUFACTURERS' RECORD is receiving from experts in road-building and from others interested in the subject messages commendatory of its special good-roads issue of October 28. Some of the letters follow:

Mr. C. Taylor, Cuthbert, Ga., Ordinary, Randolph county:

"Your great efforts for the upbuilding of our great South should be highly appreciated by the citizens thereof, and I feel sure that they do so. We are making pretty good progress in road improvement in Randolph county."

R. W. Silvester, president Maryland Agricultural College, College Park, Md.:

"The splendid work you are doing for the South is greatly appreciated by everyone interested in that section, and the number interested in that section is growing from day to day."

H. G. Shirley, Towson, Md., Baltimore County Roads Engineer:

"The good-roads number of the MANUFACTURERS' RECORD is in every way a great success, and no doubt will do a great deal of good throughout the South."

Jas. O. Lewis, secretary the Commercial Club, Johnson City, Tenn.:

"It is unquestionably the greatest treatise on this important subject which it has been my pleasure to see. The MANUFACTURERS' RECORD is doing a great work, and should be supported heartily by every commercial organization in the country, and especially in the South, for it certainly is a true friend to us."

Walter Wilson Crosby, chief engineer Maryland Geological Survey, Baltimore, Md.:

"You certainly have put out a splendid issue on 'good roads,' and I congratulate you highly on the result of your reports."

Mr. Henry D. Maxwell, Butler, Tenn.:

"The master mind that conceived and the facile pens that responded, thus putting into tangible thoughts and action the flood that must sweep and awaken the South to greater effort in the completion of the system of good roads have, as I see it, through the MANUFACTURERS' RECORD done that which will bring to the section greater blessing than has any effort by any journal ever done. No one can read the good-roads issue without feeling for its staff and contributors gratitude for their efforts in behalf of the land we love."

Leonard Tufts, president Capital Highway Association, Pinehurst, N. C.:

"I received the MANUFACTURERS' RECORD for October 28, in which there was some valuable information in regard to the good roads in the South, and I wish to congratulate you. It will certainly be of great service to our association in getting data as to the conditions in the different counties where we pass."

P. St. J. Wilson, commissioner, State Highway Commission, Richmond, Va.:

"Your good-roads issue was duly received. I am reading the magazine with much interest, and find some very good articles contained therein."

C. O. Bartlett, president the C. O. Bartlett & Snow Company, engineers, Cleveland, O.:

"This issue ought to do an immense amount of good. There is nothing more important to the welfare of the American



people than the building of good roads, and this agitation will certainly help matters along very much. The most important thing to do is to wake up the interest of each individual. The trouble with the American people is that they leave things too much to the public, believing that the public can do things without cost, when the fact is that it costs nearly twice as much to do things that way as by individuals. If every farmer throughout Ohio would spend just a few hours' time in keeping the water out of the road it would save thousands and thousands of dollars for the State. One of the principle things to have good roads is to keep the water out. The old saying that 'stitch in time saves nine' applies to the roads more than to any other thing the writer has ever noticed. Let us all feel that it is our duty to do a little, and do it now, and we will have very much better roads, not only in the South, but in the North and every part of the United States."

Atwood Violet, Atwood Violet & Co., New York:

"The 'good-roads' articles I read with much attention and profit."

W. E. Voorhees of the Good Roads Machinery Co., Kennett Square, Pa.:

"In reference to the matter of the special good-roads issue of the MANUFACTURERS' RECORD, I am very well pleased with its appearance, and have also been interested in the various articles descriptive of the progress which is being made in the work of road improvement in the South. The special news items relative to proposed road and street work are, of course, of interest to us at all times."

Henry B. Varner, editor the *Dispatch*, Lexington, N. C.:

"Your good-roads edition last week was great, and will do great good."

Paul D. Sargent, commissioner Highway Department, State of Maine, Augusta:

"I have looked the articles through carefully in a general way, and am very much pleased with the manner in which this issue is gotten out. I know I shall take pleasure in reading the articles very carefully. You are to be congratulated on your effort in this line."

E. C. Chambers, Southern Appalachian Good Roads Convention, Asheville, N. C.:

"I have your copy of the MANUFACTURERS' RECORD treating on the subject of constructing roads, etc. I find it of great value, and it is especially interesting to me at this time, as I am trying to get our county to employ an engineer for the construction of roads."

George C. Diehl, chairman good-roads board of the American Automobile Association, Buffalo, N. Y.:

"In common with other good-roads advocates throughout the country, I have been much interested in the aggressive campaign which you have been conducting for improved highways. Your work will unquestionably result in stimulating the movement for good roads, especially in those States which have not enacted comprehensive highway laws nor made liberal road appropriations. These laws and appropriations result from arousing public sentiment through just such effective work as is carried on by your paper, and for which good-road enthusiasts are deeply indebted to you."

W. C. Barrickman, general secretary Eagle Pass Industrial League, Eagle Pass, Tex.:

"Your 'good-roads' issue has been widely read by our citizens and county officials, with many favorable comments. We are especially interested in this subjects at the present moment, as we have recently issued \$30,000 worth of bonds for building good roads in Maverick county under the supervision of the bureau of public roads of the

Department of Agriculture, and we hope to have soon the best system of roads in Southwest Texas."

A. N. Leitnaker, O'Reilly, Miss.:

"Please accept my thanks for a copy of the Southern Good-Roads Issue of the MANUFACTURERS' RECORD. It is a complete and most satisfactory compilation, judged from the layman's viewpoint. We are just beginning to improve our roads, and I am anxious to get them started right. This issue will certainly open the eyes to the possibilities here. We need drainage and good roads. The first, if properly used, will lead to the other."

Mr. O. L. Bunn, secretary Manufacturers' Association, Chattanooga, Tenn.:

"I have read with a great deal of interest your good-roads issue, and want to congratulate you on the way the articles were gotten up."

#### Galveston County's Issue.

Typical of the spirit which has won for Galveston the admiration of the country is the vote cast last month in favor of an issue of \$500,000 for road improvement in Galveston county, Texas. In spite of many obstacles of the past 10 years, the people of that county are working earnestly and aggressively for its upbuilding, and the carrying of the bond issue by a vote of four to one characterizes the situation there. We regret that by inadvertence the amount of the bond issue was reported in our issue of October 28 as \$50,000, instead of \$500,000.

#### Automobile Atlanta.

The Automobile Exposition at Atlanta this week is a notable gathering of the conviction in other parts of the country that the Southern good-roads movement is to be pushed to the best results.

#### Another Big Plant for Bogalusa.

Dispatches from Bogalusa, La., state that the Southern Wood Distilleries & Fiber Co., Arthur W. Handford, engineer and superintendent, Chicago, Ill., is preparing to begin the construction of its proposed plant for manufacturing wrapping paper, fiber board, boxes, etc., from lumber-mill waste. This company will consume the waste from the Great Southern Lumber Co.'s immense plant at Bogalusa, La. It has secured 25 acres of land as site for the new plant, and its buildings are reported as to occupy about 1,000,000 feet of ground. The buildings and equipment for the plant will, it is understood, represent the investment of \$700,000. One hundred and twenty-five carloads of machinery are now in transit to Bogalusa, and include a 1000-horse-power steam engine. It is stated that the company has obtained enough contracts for wrapping paper to require the output of the proposed plant for the first three years.

#### Doubled Its Capacity.

[Special Cor. Manufacturers' Record.]  
Rome, Ga., November 5.

The manufacturing interests of Rome have been increased this week by the doubling of the capacity of the Patton Sash, Door & Building Co. This concern, one of the oldest manufacturing industries in this city, is engaged in moving into its new plant. This plant practically doubles the old capacity, and gives every modern convenience. The building has been constructed of brick along the lines of the most modern mill architecture. One of the features of the new plant is the fact that it is on the banks of the Oostanula River, on which stream large quantities of logs and lumber are floated from the mountains of North Georgia.

WILSON M. HARDY.

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

#### The Manchester Cotton Mills.

The Manchester Cotton Mills, Manchester, Ga., has made steady progress with the erection of its plant, previously detailed by the MANUFACTURERS' RECORD. The company has the operatives' cottages completed, and the mill building will be under roof next week. Installation of machinery will begin by December, and the plant is expected to be producing by February. The mill is 475 feet long, three stories high, of standard mill construction connected by automatic sprinklers with a 75,000-gallon tank. Its equipment will include 20,000 spindles and 475 looms, employing 400 operatives and producing drills and specialty fabrics. Preparatory machinery is being furnished by the Saco & Pettet Machine Works, Newton Upper Falls, Mass.; looms by the Draper Company, Hopedale, Mass., and 800 horsepower steam engine by the Hooven-Owens-Rentschler Company, Hamilton, O. A. F. Walker, 718 Austell Building, Atlanta, Ga., is mill architect-engineer in charge, and Pike Bros. Lumber Co. of Lagrange, Ga., is the building contractor. Fuller E. Callaway of Lagrange, Ga., is president of the Manchester Cotton Mills, which will represent an investment of about \$500,000.

#### Oklahoma Cotton Mills Co.

The Oklahoma Cotton Mills Co., Chickasha, Okla., will soon complete the buildings for its plant, previously reported by the MANUFACTURERS' RECORD. Its mill will be 60x180 feet, three stories high, of brick, with concrete first floor. Its equipment has been purchased and will manufacture knit underwear from low-grade cotton. This machinery will be driven by electricity, but a boiler and engine will be installed for emergency use. The company incorporated with a capital stock of \$150,000, and R. K. Wootten is president.

#### Will Establish Hosiery Mill.

J. T. Duncan and associates of Douglasville, Ga., will establish mill (mentioned last month) for knitting hosiery. They have purchased a building and power plant and want the hosiery knitting machinery.

#### Cleghorn Mills Co.

The Cleghorn Mills Co. of Rutherfordton, N. C., has been incorporated with a capital stock of \$200,000 by J. C. Mills, R. P. Scruggs, Jr., and others.

#### Textile Notes.

E. P. Brown of Greenville, Miss., proposes the establishment of a hosiery mill.

R. E. Townsend of Wilson, N. C., is reported as interested in a plan to build a cotton mill.

John H. Tate, 324 North Main street, High Point, N. C., will probably complete arrangements early in 1910 for the establishment of his proposed hosiery knitting mill previously mentioned.

The Orr Cotton Mills of Anderson, S. C., has awarded contract for the improvements mentioned last week. This company will add eight intermediates, 14 fly frames and double creel the spinning, so as to produce print cloth.

Messrs. G. W. Joyner, A. F. May, J. W. Hinton and others of Spring Hope, N. C.,

are planning to organize the cotton-mill company mentioned in September. They contemplate developing water-power on Tar River to operate the mill.

The Kerr Bleaching and Finishing Works of Concord, N. C., will not make any improvements in connection with the increase of capital stock (from \$25,000 to \$45,000) mentioned last week. The amount named pays for replacing the burned building and machinery previously reported and now completed.

The Amazon Cotton Mills Co., Charles G. Hill, treasurer, Winston-Salem, N. C., has awarded contract at \$25,000 to Thompson Bros. of Charlotte, N. C., for construction of mill building and reservoir for plant to be established at Thomasville, N. C. This company was reported recently as organizing, etc.

## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

#### Kirby Lumber Co.

Dispatches from Houston, Tex., refer interestingly to the Kirby Lumber Co. plans. They state that "the Neches River and the two ports of Port Arthur and Sabine Pass are to be utilized by the company in making Beaumont the export center of its lumber trade."

"The mill at Beaumont, which was practically rebuilt during the receivership and is valued at \$150,000, will be put in operation shortly after January 1, and in connection the company will build a large planer, also extensive sheds for storing lumber for export shipments."

"The improvements will cost about \$75,000. The sheds will be used in accumulating and storing primes and high-priced lumber, so as to always have quantities sufficient on hand to load ships immediately."

"Most of the export shipments of the company are now to European countries, but it is the intention to develop an export trade with the West Indies, especially Cuba."

"Many logs for the mill will be floated to Beaumont, and others will be shipped by rail. The lumber will be floated by barge to the two ports named."

"B. F. Bonner, general manager for the Kirby Lumber Co., is quoted as saying that Beaumont is most advantageously located for the company, and the shipping points will relieve it of disadvantages in export owing to a two-line rate it had previously been under."

#### Will Build \$50,000 Mill.

Announcement is made that a \$50,000 mill will be constructed at Lexie, Miss., by the Pike County Lumber Co., which has been chartered with a capital stock of \$150,000. This company has acquired the holdings of the Edwards-Hinds Lumber Co. in Pike county. It is being organized by Messrs. Fred. H. Cline, E. W. Cline and E. P. Holmes of the Cline-Holmes Lumber Co. of Hattiesburg, Miss.

#### Birch and Oak Wanted.

The National Showcase Co. of Columbus, Ga., wants 4-4s firsts and seconds plain oak and 4-4s firsts and seconds unselected birch.

#### A \$417,000 Paving Contract.

An instance of the extent of municipal paving plans in Oklahoma was a contract awarded last week at Oklahoma City. This contract amounts to \$417,000, and provides for paving seven miles of streets. It was awarded to the Cleveland Trinidad Paving Co. of Cleveland, O.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### TO BUILD NEW ROUTES.

#### A Georgia Line to the Gulf—Iron Ore Railroad in Two States, and Others.

Several new railroad projects in the South and Southwest have recently developed, including the following charters or incorporations:

Mexican Gulf Railway Co., which has applied for a charter to build a line from Thomasville, Ga., to St. Joseph's Bay, Fla., 146 miles; capital \$3,000,000. About three years ago a route was surveyed for this road, but the panic deferred efforts to build it. The incorporators who have taken up the plan are W. C. Snodgrass, J. L. Phillips, A. T. Snodgrass, W. I. McIntyre, J. F. Evans, M. M. Cooper, W. H. Mitchell, Lee Neel and Ralph Neel, all of Thomasville.

West Virginia Railway Co. chartered in West Virginia to build a line from Keyser, in Mineral county, to the Virginia boundary, on the south branch of the Potomac River, in Pendleton county. This incorporation or charter is for the purpose of building part of the proposed line recently described as projected from Clifton Forge, Va., on the Chesapeake & Ohio Railway, to Keyser, W. Va., 160 miles, for the purpose of developing iron-ore lands in which a large steel company is interested. The capital is \$200,000, and the incorporators are John J. Stoutenburg, John G. Rogers, Verne M. Bowie of New York, B. H. Hiner of Franklin, W. Va., and C. M. Lunsford of Monterey, Va.

Citizens' Traction Co. chartered in Oklahoma to build a line from Oklahoma City to Shawnee through Oklahoma, Pottawatomie, Lincoln, Cleveland, McLain, Garvin and Murray counties, and later possibly a line between Oklahoma City and Sulphur. The organization of this company is the result of a combination of plans recently announced by several promoters whose names appear in the list of stockholders as follows: L. E. Patterson, W. F. Harn and J. H. Winans of Oklahoma City, Homer S. Hurst of Holdenville, Okla., and Alfred Hare of Shawnee, Okla.; capital \$300,000.

Bryan & Brazos River Railway Co. organized to build a line about 20 or 25 miles long from Smetan, in Burleson county, Texas, to a point down the Brazos River, across which a bridge will be built about nine miles west of Bryan. The route is through a level country; engineers not yet appointed. Connection would be made with the International & Great Northern Railroad at the point of beginning. Those interested are J. W. Howell, W. E. Saunders, J. W. English, J. E. Butler, J. K. Parker, G. S. Parker, J. A. Myers, A. W. Wilkerson and E. H. Astin, all of Bryan, Tex.

Corpus Christi Street & Interurban Railroad Co. chartered at Corpus Christi, Tex., with \$100,000 capital to build lines in or about that city. The incorporators are Daniel Hewitt and V. S. Heinley of Corpus Christi, Tex., and Earl C. Heinley of Colorado City, Col.

In addition to the foregoing, the Lawton & Fort Sill Electric Railway Co. of Lawton, Okla., will build a line 18 miles long from Lawton to Fort Sill and Medicine Park, at the foot of Mount Scott, in the Wichita Mountains, which will require one bridge 50 feet long across Medicine Creek. The country is level excepting for the last mile into the foothills of the Wichitas. Connections will be made with the Frisco and the Rock Island lines. Simon Smith is president; W. H. Pattie, secretary, and D. L. Sleeper, vice-president

and counsel of the new company, all at Oklahoma City.

A letter from Waco, Tex., says that the proposed railroad from Waco to Georgetown, Tex., 75 miles, will probably be known as the Waco, Belton & Georgetown Railway, unless it is built by the International & Great Northern Railroad to form part of its system. An organization has not yet been formed, and the matter is in charge of an executive committee representing towns along the proposed route, which is via Moody, Belton, Salado and Cornhill, Tex. The country through which the line will run ranges from level to gently rolling, and is a splendid agricultural region. Three bridges of medium size will be required over the Leon, Lampasas and San Gabriel rivers, besides some smaller bridges over creeks. Connection will be made with the International & Great Northern, the St. Louis & Southwestern, the Missouri, Kansas & Texas, the San Antonio & Aransas Pass, the Texas Central and the Houston & Texas Central at Waco; the Santa Fe at Moody; the Missouri, Kansas & Texas and the Santa Fe at Belton, and the Missouri, Kansas & Texas and the International & Great Northern at Georgetown. An engineer has not yet been appointed. S. P. Brooks, William L. Prather and others are interested.

The Alabama Terminal Railroad is the name of the line which is being built by the Atlanta, Birmingham & Atlantic Railway between Bessemer and Birmingham, Ala., 10 miles. The line runs through a valley of rolling country, and three concrete bridges are required. The contractors are Furtwangler & Smith of Birmingham and the Nichols Contracting Co. of Atlanta. The work is to be completed February 1. The officers of the principal company are H. M. Atkinson, president, and Alexander Bonnyman, general manager and chief engineer. W. A. Hammel is assistant engineer.

### PENNSYLVANIA INTERESTED.

#### Elizabeth River Line Bought by the Norfolk & Portsmouth Belt Road.

The Norfolk & Portsmouth Belt Line Railroad Co. has purchased the Elizabeth River Railway, according to announcements made at Norfolk, Va. The Elizabeth River line is about 10 miles long, including all trackage, and reaches 10 miles of water front on the Southern branch of the river. E. A. Buell, president of the Norfolk Crocoting Co., is president of the latter road. The Pennsylvania Railroad is said to be interested in the purchase of the line, which connects with logging railroads extending through the Dismal Swamp region for about 25 miles. It is believed that the Pennsylvania will extend the two terminal lines and otherwise develop the water-front property along them.

William A. Patton is president of the Belt road. His headquarters are at Philadelphia, where he is assistant to the president of the Pennsylvania Railroad. L. E. Johnson, president of the Norfolk & Western Railway, is vice-president of the Belt Line, and George S. Shafer of Port Norfolk, Va., has for some time been superintendent of both the Belt and the Elizabeth River railroads.

#### The Rio Grande Bridge.

A. T. Perkins of St. Louis, who is managing director of the St. Louis, Brownsville & Mexico Railway, is reported as saying that it is expected to finish the new railroad bridge across the Rio Grande between Brownsville, Tex., and Matamoros, Mexico, before February 15. It was expected to complete it by January, but high water delayed the work. Four piers have been built and the steel is on

hand waiting for the completion of the other piers, on which fair progress is being made.

### Railroad Reports.

The Cincinnati, New Orleans & Texas Pacific Railway's report for the fiscal year ended June 30, 1909, shows gross earnings, \$7,826,982; net earnings after the payment of expenses and taxes, \$2,507,290. Last year these figures were, respectively, \$7,892,050 and \$1,631,577. The surplus for the present year was \$397,635, as compared with \$167,510 last year. The total surplus was \$1,158,873 this year, and after the payment of dividends and sundry adjustments, \$933,419.

The annual report of the Mobile & Ohio Railroad for the fiscal year ended June 30 shows gross operating revenues, \$9,727,726; net operating revenues after the payment of operating expenses, \$3,138,078. The gross as compared with last year shows an increase of \$63,935, and the net an increase of \$349,277. After receiving revenue from outside operation and after paying taxes the operating income was \$2,865,976, an increase of \$324,654; total income \$3,068,584, increase \$352,812; surplus after the payment of interest and dividends, etc., \$116,962, increase \$42,562; profit and loss surplus \$2,168,607, decrease \$26,080. The funded debt was decreased \$1,085,939.

The Alabama Great Southern Railroad Co.'s report for the fiscal year ended June 30, 1909, shows gross operating revenue \$3,560,292, decrease \$12,689; net operating revenue after payment of operating expenses \$1,075,386, increase \$373,094; total income after other receipts and expenditures, including the payment of taxes, \$1,079,661, increase \$164,814; surplus after the payment of fixed charges and dividends \$190,833, decrease \$19,383; profit and loss surplus \$953,244, increase \$34,005.

The Gulf & Ship Island Railroad Co. reports for the fiscal year ended June 30, 1909, operating revenues \$1,873,196, decrease as compared with last year \$193,682; net earnings after the payment of operating expenses \$465,978, increase \$83,025; total income after other receipts and expenditures, including the payment of taxes, \$412,463, increase \$48,780; surplus after the payment of interest, rentals, etc., \$4658.

### New Equipment, Rails, Etc.

The Norfolk & Southern Railway, according to a late dispatch, is in the market for 200 flat cars and 300 box cars.

The San Antonio & Aransas Pass Railway has filed an equipment contract covering the purchase of 50 flat cars of 80,000 pounds capacity from the Haskell & Barker Car Co. of Chicago.

The Kansas City, Mexico & Orient Railway has also filed an equipment contract in Texas covering five consolidation locomotives, four switching locomotives and one eight-wheel tender from the American Locomotive Co., New York.

The Chicago & Alton Railroad is reported contemplating the purchase of 20 locomotives.

The Port Arthur Traction Co., Port Arthur, Tex., is reported to have ordered 12 standard cars from the Barber Car Co. of York, Pa., six to be delivered immediately.

The Missouri & North Arkansas Railway has ordered two Mikado locomotives from the Baldwin Locomotive Works, Philadelphia.

The Pennsylvania Railroad, according to a dispatch from New York, is about to order 10,000 cars.

The Atlantic Coast Line is reported contemplating the purchase of 750 steel under-frame box cars. The Coast Line is also

reported to have ordered from the Pennsylvania Steel Co., Steelton, Pa., 7500 tons of rails.

The Texas-Mexican Railway, according to a dispatch, has ordered 1900 tons of rails from the Carnegie Steel Co.

An officer of the Illinois Central Railroad denies a report that the company had ordered rails.

The Atchison, Topeka & Santa Fe Railway, according to a report from Chicago, will purchase 10,000 cars for delivery next year.

The Richmond, Fredericksburg & Potomac Railway is reported about to enter the market for 20 locomotives.

### Seaboard's New Bonds.

The Seaboard Air Line, having been taken out of the hands of receivers on November 4, as previously announced, has filed mortgages in Virginia and other States to secure \$150,000,000 of new securities in connection with the reorganization. These bonds consist of \$125,000,000 of 4 per cent. 50-year refunding bonds and \$25,000,000 of 5 per cent. 40-year adjustment bonds. The New York Trust Co. is trustee for the former and the Fidelity Trust Co. of Baltimore for the latter.

A special committee has been appointed to nominate officers of the Seaboard, including the naming of a president to fill the vacancy. The committee includes L. F. Lorie, B. F. Yoakum, V. Vandenburg, Ernst Thalman, S. Davies Warfield, John Skelton Williams, N. S. Meldrum, W. B. Dunham and Franklin Q. Brown.

### Sale of an Electric Railway.

Control of the Cumberland & Westernport Electric Railway, a line 30 miles long, extending from Cumberland, Md., through the George's Creek mining region, has been purchased by Henry L. Doherty & Co., 60 Wall street, New York, according to a dispatch from Cumberland, which says that the control has heretofore been held by Calton L. Bretz, general manager of the Cumberland & Pennsylvania Railroad, and it is understood that the deal involves about \$200,000. The line has two power-houses, one at Clarysville and another at Reynolds. There are 14 cars.

In connection with this deal it is reported that efforts have been made to purchase the Cumberland Electric Railway Co., which operates a street-car line, and also the electric-light plants in Cumberland, Frostburg, Lonaconing and Westernport, Md.

### High-Speed Electric Road.

The St. Louis-Kansas City Electric Railway Co. of Kansas City, lately chartered to build a high-speed double-track line across the State of Missouri, about 250 miles, also a branch of 40 miles, has decided to increase its capitalization from \$5,000,000 to \$15,000,000; to authorize the issue of \$15,000,000 of bonds and to sell \$2,000,000 of 7 per cent. preferred stock. The directors of the company are D. C. Nevin, president; John H. Berkshire, first vice-president; D. L. Dorsey, second vice-president; Charles A. Loomis, general solicitor; J. H. Reeder, assistant general solicitor; H. E. Insley, secretary and auditor; H. V. Johnson, treasurer; W. Weston, W. A. Hamilton, L. M. Nevin, S. P. Spencer, Geo. A. Anderson, W. D. Griffith, C. W. Reeder and R. S. Mahan.

### St. Louis to San Francisco.

Now that the Western Pacific Railway is completed, the Gould lines between Mississippi River and the Pacific Ocean will put on through trains, according to a report from St. Louis, to run from that city to San Francisco, following the tracks of the Missouri Pacific, the Denver & Rio



Grande and the Western Pacific roads. It is expected that this service will begin early next year, but it does not appear that any formal announcement has been made concerning it.

#### Railroad Notes.

A report from Chattanooga says that the new passenger station in that city will be opened on December 1.

A dispatch from Stamford, Tex., announces the absorption of the Stamford & Northwestern Railway by the Burlington system, according to plans previously announced. George B. Harris of New York succeeds L. M. Buie as president.

The Norfolk & Southern Railway is to be sold on December 7 at noon instead of December 5, as was previously reported. The sale will take place at Norfolk, Va., and will include 511 miles of railroad, besides a lease on 95 miles of line, in addition to all the other property of the system.

A press dispatch reports that Miss Frances Storrs of Dimmitt, Tex., is endeavoring to secure the building of a railroad from that place about 65 miles to connect with the Santa Fe. It appears that Miss Storrs owns considerable land in the Panhandle of Texas, and wishes to develop it by providing adequate railroad facilities.

The Atlantic Coast Line informs the MANUFACTURERS' RECORD that Pullman space is reserved for Baltimore on train No. 85, the Florida & West Indian Limited, as follows: Section 4 in the Jersey City-Jacksonville sleeper; section 3 in the Jersey City-Knights Key car; section 7 in the Jersey City-Port Tampa car; sections 3 and 4 in the Jersey City-Charleston car, and sections 3 and 4 in the Jersey City-Augusta car. Thus seven sections are assigned to Baltimore on this one train.

#### Oklahoma City's Growth.

[Special Cor. Manufacturers' Record.]

Oklahoma City, Okla., November 4.

October was another record-breaking month in Oklahoma City's commerce and business; in fact, it was the tenth record-breaking month of the year. Marvelous gains were registered in all channels of business, and even more than the most sanguine expectations. Almost \$500,000 was expended for new buildings the past month, which was more than double the amount spent in October, 1908. The bank clearings of October, 1909, were practically double those of October, 1908.

GEORGE B. SAUNDERS.

#### Outlook in Texas.

The Athens Fire Brick Co. of Athens, Tex., writes to the MANUFACTURERS' RECORD:

"The business prospect in Texas is exceedingly bright, as we have done more business in the last six months than at any previous equal length of time in the history of our plant. Though crops were short, the prevailing high prices have equalized this shortage, and a feeling of prosperity and confidence prevails in all business enterprises. The city of Athens has recently issued \$30,000 worth of water-works bonds, and we are to have water-works and sewer system."

#### Sanders Fertilizer Co.

The G. W. Sanders Fertilizer Co. of Jacksonville, Fla., has been incorporated with a capital stock of \$100,000 and will build an extensive manufacturing plant at Fairfield. Its incorporators are Messrs. G. W. Sanders and G. A. Ormerod of Jacksonville and L. R. Woods of Tampa. Mr. Sanders is president, and Mr. Woods, secretary-treasurer. Mr. Sanders was until recently president of the Independent Fertilizer Co., formerly the Sanders Fertilizer Co.

## MINING

### North Carolina Mica.

Editor Manufacturers' Record:

In calling attention to the resources of the South, in which work the MANUFACTURERS' RECORD is doing so much, and seems to be alone, Franklin, N. C., the county-seat of Macon county, should not be overlooked. Those interested in mica and kaolin can find it here in abundance, and both are of superior quality. The writer has proved that the mica (which for years has been known for its quality) improves both in quantity and quality with depth. And the kaolin, of which there is an abundance, is the whitest and best the writer has ever seen. A large plant for washing is promised at an early date, and another is under consideration. This industry is bound to be a large one. There is an undeveloped water-power, estimated at over 3000 horse-power, within two miles of the city that will bring in other industries, and Franklin is bound to be more than an attractive summer resort.

C. T. HOLBROOK.

Franklin, N. C.

### The Pocahontas Mining Corporation.

Regarding a report that the Pocahontas Mining Corporation will develop 20,000 acres of coal lands at the head of Big Creek, near Tazewell, Va., the MANUFACTURERS' RECORD is informed that the company owns about 20,000 acres of coal lands in McDowell county, West Virginia, and Tazewell and Buchanan counties, Virginia, but has not determined to what extent it will develop them. The company has constructed a branch railway from Richlands, in Tazewell county, on the Clinch Valley division of the Norfolk & Western Railroad, to the property, and will probably develop about 3000 acres at this time. Messrs. George W. St. Clair of Tazewell, Va., and Thomas M. Righter of Mt. Carmel, Pa., are interested, and Malcolm Smith of Big Stone Gap, Va., is the engineer in charge.

### The Crozier-Pocahontas Company.

The Crozier-Pocahontas Company has been incorporated with a capital stock of \$500,000 and principal offices in Philadelphia. It is understood to be arranging to handle the coal output of the Tierney operations in the Norfolk & Western fields. Its incorporators are Messrs. L. E. Tierney of Powhatan, W. Va.; John J. Tierney of Elkhorn, W. Va.; Samuel A. Crozier of Uplands, Pa.; George C. Clausen of New York, G. H. Nowlin of Lynchburg, Va., and others.

### Wants Slope and Shaft Bids.

The Winding Gulf Colliery Co., Winding Gulf, W. Va., invites bids for the construction of two slopes, about 75 to 150 feet, respectively, and one shaft about 75 feet deep. Justus Collins, president of the company, has his offices at 1503 Union Trust Building, Cincinnati, O., but all communications should be addressed to Winding Gulf. The company's organization and plans for the development of coal lands were reported some time ago by the MANUFACTURERS' RECORD.

### The Axley Copper Co.

Chattanooga capitalists are planning to develop copper properties near Ducktown, Tenn., and will operate as the Axley Copper Co. This company has applied for a charter, and will have a capital stock of \$100,000. Its incorporators are W. W. Axley, J. B. F. Lowry, Paul Campbell, J. B. Smith and W. D. Carswell, all of Chattanooga, Tenn.

## MECHANICAL

### Sewed Leather-Soled Rubber Boots.

Contractors are finding it economical to equip their men with leather-soled rubber boots when there is wet excavation to be done, as this allows the work to proceed without any delays due to discontent or ill-health among the men.

Because of the rough work, the regular rubber-soled rubber boots wear out so



ESPECIALLY FOR ROUGH WORK.

quickly that the leather soles are a necessity.

Formerly the leather soles were attached to the rubber uppers with nails, but after the boots were worn a short time the water often followed the nails into the boot and a rubber boot with water inside is worse than no boot at all.

The Mulconroy Company, 722 Arch street, Philadelphia, Pa., claims that its "seven-league" sewed leather-soled rubber boot is the only boot made with a leather

This strong arrangement of attaching the sole makes the use of nails not necessary, and consequently there are no perforations in the soles.

When walking around jagged stone, etc., the lower outside of the boot is in constant danger of being punctured or snagged, and here the "seven-league" boot is reinforced with an extra thickness of double-weight canvas, also an extra thickness of rubber.

See accompanying illustration of the "seven-league" boot.

### A Modern Method of Decorating.

Among recent innovations that will attract considerable attention is the "Joxyl" method of interior decoration. This system enables owners of dwellings and other structures requiring interior decoration to obtain results that have heretofore been possible only with the best architectural and artistic talent and at a large cost. The results of the "Joxyl" system are illustrated by two accompanying views. Describing the system, the American Joxyl Company says:

"The word 'Joxyl' denotes a decorative and ornamental product arrived at by the application of a chemical and mechanical process to porous substances, particularly wood, by which the most practical and beautiful results are obtained. The invention combines, by the transparent and absorbent results of the process, the decorative effect of the design with those of the natural structure of the wood, if wood is used, greatly enhancing the beauty of both. If other material than wood is used the same peculiar and distinctive results may be obtained by a slightly different process." An asbestos fireproof panel can be made



WAINSCOTING AND DOORS IN "JOXYL" PANELS.

sole attached without the use of any nails or screws in the soles. Thus it is impossible for water to get into the boots. This construction is possible only because of certain patented improvements at the juncture of the welt sole and the upper. The upper of the boot is turned out over the welt, and the stitches that hold on the wearing sole pass through the out-turned upper so that the strain is brought directly on the canvas in the upper, and not on the welt.

to appear like a piece of natural mahogany, with rich inlaid devices upon it. A 'Joxyl' door panel that had been exhibited at Atlantic City, when the car manufacturers were in convention, looked like a solid piece of richly inlaid and grained solid mahogany, costing \$200 at least, but it was made for less than \$15.

"The process can be applied to wood of any thickness, or to a veneer so thin that it can be rolled up or made to adhere like wallpaper, and always with the same re-

markably beautiful and artistic effects. It can be applied to any kind of wood, hard or soft—ash, birch, mahogany, walnut—and to fireproof materials as well.

"The result of the use of 'Joxyl' is to

rapidly are strikingly indicated in work now being done at New Orleans.

Among the improvements being made by the commissioners for the port of New Orleans are a number of sheds which are be-

long, making a total of 2020 feet of storage sheds, or slightly over three-eighths of a mile. They are 72 feet in width.

The contract for erecting all these sheds was awarded to the Mackle-Crawford Construction Co., and its abilities for quick work are shown by the short time it required to put the steel in position, the St. Andrews street shed being erected complete in 26 days, or at the rate of 80 linear feet of shed daily. To handle the structural steel and put it in place a mule traveler was used, this being shown on the left of the illustration. President S. R. Crawford of the company was personally in charge, assisted by Vice-President James Mackle. All the structural steel used was fabricated by the Massillon (Ohio) Bridge & Structural Co., the contract being taken by DeVore & McGormley, its contracting agents at Toledo, O.

The commissioners for the port of New Orleans include Messrs. Hugh McCloskey, president; Wm. A. Kernaghan, vice-president; Wm. H. Byrnes, secretary; Bernard McCloskey, attorney; Filey S. McChesney, assistant secretary and treasurer; A. C. Bell, engineer, and J. F. Coleman, consulting engineer.

#### Seventy-five Years of Engine Building

To celebrate its seventy-fifth anniversary the C. & G. Cooper Company, engine builder, Mt. Vernon, O., has compiled a book which not only outlines the history of the company's growth but also suggests in a general way the rapid development of power machinery, with which this company has been intimately connected since 1833.

From its humble beginning in the small "one-horse" foundry this company's works now rank among the largest and best equipped in the United States, devoted exclusively to the building of steam and gas engines. The founders began by building an engine of the most primitive type, and through successive stages of evolution, steam and gas engines of the most modern design form the present product.

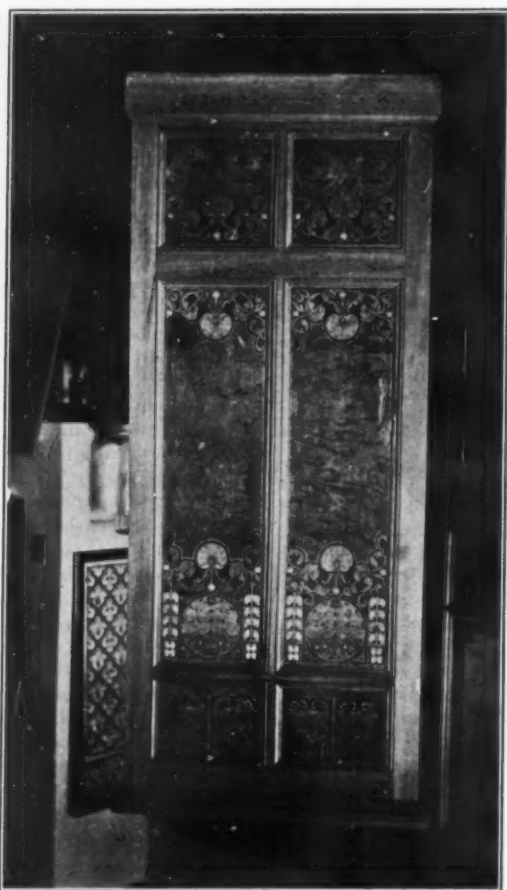
ness and come into personal contact with their patrons and employees, resulting in a continued friendly relationship with both. The company has always shown a personal, almost a paternal interest, in the well-being of its employees by encouraging thrift among them and paying 6 per cent. interest upon savings left with it, by assisting them to acquire their own homes, and by helping them during periods of depression by a liberal payroll policy. A large per cent. of the men own their own homes and are permanent and useful citizens of the community.

In writing to the MANUFACTURERS' RECORD, Assistant Secretary B. B. Williams of the company said: "Looking back over the 75 years of our business experience, it is gratifying to know that faith has been kept with the founders; that the business has been carried forward through successive panics without interruption; that the confidence and good-will of patrons and employees have been held, and that the company's position in the front rank among power machinery builders of this country has been maintained."

The book is a beautiful example of the printers' art. The cover is of heavy embossed paper, with the title in gilt lettering, while each page of the interior, which is of heavy glazed paper, contains, in addition to the reading matter, illustrations depicting some phase of power development from its beginning to the present day. In every way the volume is indicative of the importance and dignity of the company, and its contents will prove interesting to power users.

#### A \$250,000 Hydro-Electric Plant.

It is understood that the Bristol Gas & Electric Co. of Bristol, Va.-Tenn., has completed arrangements ensuring the construction of a \$250,000 hydro-electric plant to augment its facilities for furnishing electricity for light, heat and power. The plant is to be built by another corporation and completed by July, 1910. Its elec-



WAINSCOTING INVOLVING "JOXYL" REPRODUCTION.

make the wood impervious, so as to preserve its surface indefinitely and to prevent its being penetrated by any liquid substance. A panel, be it as thin as a visiting card, can be washed with soap and water or antiseptic solutions and the surface remains unaffected. The face of the wood or other material treated process resists not only the wear and tear of the ordinary use, but even the action of acids, better than the hardest woods.

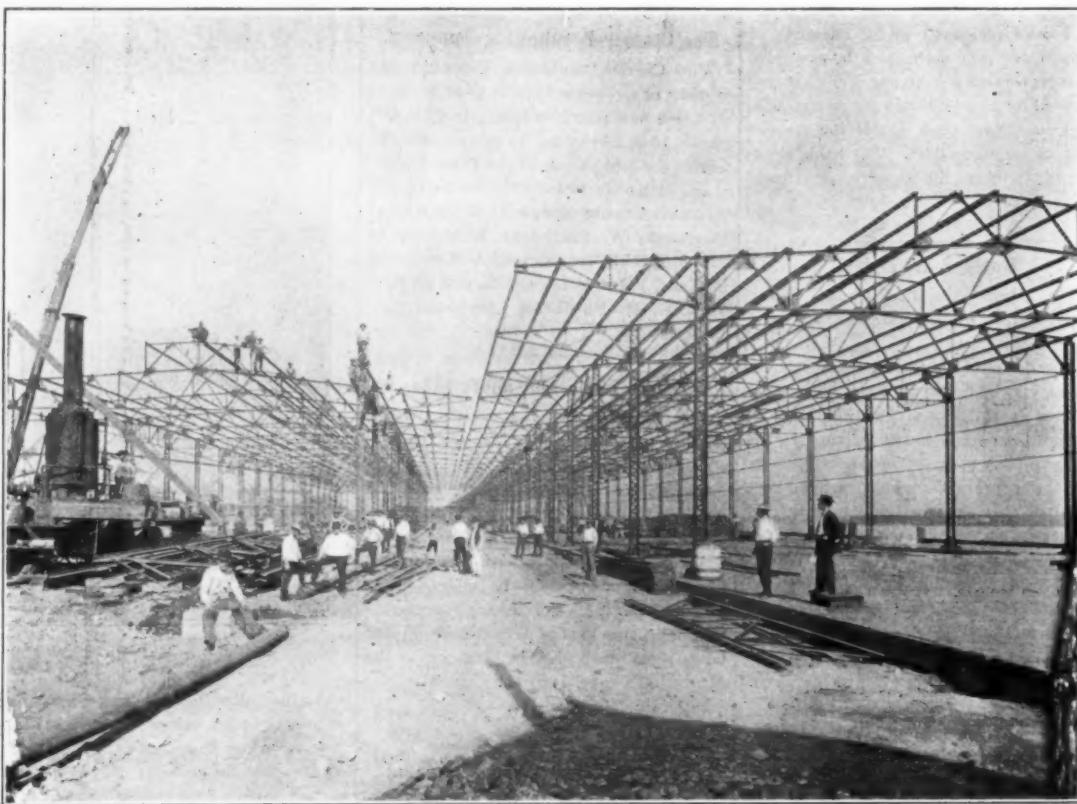
"Edgard Joxz of Brussels, one of the inventors of 'Joxyl,' who is president of the American Joxyl Company, is in New York in connection with plans for establishing a large plant to manufacture 'Joxyl' in this country under the strongest financial auspices."

The American Joxyl Company has been capitalized for \$1,250,000, and pending the installation of the American plant, "Joxyl" panels are delivered from stock or from the European factory. Its American offices are at 30 Church street, New York.

#### Record in Structural Steel Erection.

In the erection of structural steel for buildings, bridges and other structures it is often necessary that the placing of the steel in position should be done quickly in order that the structure may be put into service. This demand for rapid work has led to the formation of companies making a specialty of erecting steel structures. These companies maintain expert erectors and special equipment, and are able to handle contracts of this kind in a rapid and thorough manner. They include the Mackle-Crawford Construction Co., Jacksonville, Fla., which makes a specialty of the erection of steel bridges and buildings, tanks and stacks in all parts of the South and Southwest. This company also undertakes the installation of heavy machinery. Its facilities for erecting structural steel

ing built along the Mississippi River for unloading and storing lumber, cotton, etc. These sheds are large and entirely of steel on concrete foundations. They include the St. Andrews street, Celeste street and Bien-



ST. ANDREWS STREET STEEL SHED, NEW ORLEANS, ERECTED IN 26 DAYS.

ville street sheds. The accompanying illustration shows the St. Andrews street shed. The structure on the right is 1580 feet long, and that on the left is 440 feet

Although the personnel of the company is now in the third generation, the broad policy actuating it remains essentially unchanged. The owners manage the busi-

tricity will be delivered to a substation near Bristol at a voltage of 10,000, and from there will be transmitted direct to the city.



# Construction Department

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

### ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECT

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

## BRIDGES, CULVERTS, VIADUCTS

Ala., Gadsden.—City awarded contract to W. A. Ferret, Birmingham, Ala., to construct concrete bridge across Town Creek at 4th street.

Ala., Mobile.—Pensacola, Mobile & New Orleans Railroad, Henry McLaughlin, president, will construct bridge to connect Baldwin county and Mobile.

Ga., Augusta.—R. P. Williams, representative of Roanoke Bridge Co., Roanoke, Va., is interested in construction of bridge across Savannah River at Sand Bar Ferry; estimated cost \$50,000.

Ga., Jackson.—Butts county will vote December 11 on issuance of \$5000 of bonds for construction of bridges; J. O. Gaston, chairman Commissioners.

La., Tallulah.—Madison Parish Police Jury, A. L. Slack, secretary, awarded contract to W. T. Young Bridge Co. at \$236 for building of bridge across Roundaway Bayou; structure 140 feet long, 16 feet wide, with 60-foot span approaches. (Previously mentioned.)

Miss., Long Beach.—Gulfport & Mississippi Traction Co., J. T. Jones, president, contemplates erection of several small bridges in connection with railway from Long Beach to Pass Christian, Miss.

Miss., Vicksburg.—Vicksburg Electric Railway Co., S. S. Bullis, president, Vicksburg, and Alabama & Vicksburg Railway, D. D. Curran, president, New Orleans, La., contemplate construction of viaduct to cost \$40,000.

N. C., Winston-Salem.—Winston-Salem Southbound Railroad, O. H. P. Cornell, chief engineer, Winston-Salem, N. C., will soon begin construction of proposed steel bridge across Yadkin River; 10 piers and two abutments; Scott Bros., Lynchburg, Va., have contract for concrete work. L. M. Williams, Lynchburg, Va., will superintend construction.

Okl., Ryan.—Jefferson county proposes to vote on issue of \$10,000 bridge and road bonds. Address County Commissioners.

Tex., Dallas.—J. M. Preston, City Engineer, prepared plans and specifications for steel re-

inforced concrete bridge over Turtle Creek on Cedar Springs street; structure is to be 125 feet long and 50 feet wide; span for passing of creek beneath roadway will be 70 feet long and 17 feet high; cost \$7000.

Va., Portsmouth.—Norfolk county received bids until November 8 for repairing and maintaining for one year bridges and roads embraced in Washington, Butts Road and other districts. (See "Road and Street Improvements.")

Va., Suffolk.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., is reported to construct bridge over tracks near Kilby Station.

Va., Suffolk.—Virginian Railway, H. Fernstrom, chief engineer, Norfolk, Va., is reported to construct bridge across tracks near Kilby Station.

## CANNING AND PACKING PLANTS

Ky., Mt. Sterling.—Old Kentucky Packing Co. (recently reported incorporated with \$25,000 capital stock) has organized with D. N. Young, president; C. G. Thompson, treasurer; Roger D. Barnes, secretary; purchased two-acre site for construction of proposed plant.

Tex., Riviera.—Marcus Phillips, secretary of committee, is interested in contemplated establishment of cannery. (See "Machinery Wanted.")

## CLAYWORKING PLANTS

Mo., Fulton.—Fire-brick.—Fulton Fire-Brick Co., L. U. Nickell, vice-president (recently noted to increase capital stock and to double capacity), has placed order for all new machinery needed.

W. Va., Charleston.—Clay Products.—West Virginia Clay Products Co. incorporated with \$200,000 capital stock; W. E. Caldwell, president; A. H. Robinson, first vice-president; Sam P. Jones, second vice-president; R. H. Yates, secretary-treasurer; purchased 153 acres clay land and will establish plant for manufacturing clay products; capacity, 70,000 bricks daily.

## COAL MINES AND COKE OVENS

Ala., Gadsden.—J. W. Hammond, E. R. Leffevre and others, recently noted to purchase 5000 acres coal land on Little River, are tunneling mine to determine extent of coal; will not install machinery at present.

Ky., Flat Rock.—Cinch Coal & Coke Co. (not "Church" Co., as recently noted) incorporated with \$10,000 capital stock; Oscar W. Black, president and treasurer; Frazier J. Black, secretary and manager; Owen A. Black, superintendent of mines.

Va., Richmond.—Raven Red Ash Coal Co. increased capital stock from \$40,000 to \$70,000.

Va., Tazewell.—Pocahontas Mining Corporation (Thos. M. Righter, Mt. Carmel, Pa., and Geo. W. St. Clair, Tazewell) has not decided on extent of developments of coal lands recently mentioned; owns about 20,000 acres in McDowell county, W. Va., and Tazewell and Buchanan counties, Va.; has constructed branch railway to property and is driving headings; will probably develop 3000 acres at present; no machinery now needed; Malcolm Smith, engineer in charge, Big Stone Gap, Va.

W. Va., Harvey.—New River Company, Samuel Dixon, president, Macdonald, W. Va., has begun erection of coal tipples at Harvey mine, to cost \$25,000.

W. Va., Huntington.—Federal Land & Mining Co. incorporated with \$100,000 capital stock by W. S. Edwards, Frank Smith, C. F. McConihay and others, all of Charleston, W. Va.

W. Va., Marion County.—David S. Myers, Pontiac, Ill., purchased at \$150,113 one-half interest in tract of 1297 acres of coal land; previously owned other half.

W. Va., Winding Gulf.—Winding Gulf Colliery Co. (organization and development plans previously reported) invites bids on two slopes, about 75 to 150 feet, respectively, and on one shaft about 75 feet deep; Justus Collins, president, 1503 Union Trust Bldg., Cincinnati, Ohio, but address all communications to company at Winding Gulf. (See "Machinery Wanted.")

## CONCRETE AND CEMENT PLANTS

Fla., St. Petersburg.—Southern Concrete & Construction Co., George W. Williams, president, leased site having frontage of 350 feet on canal and will establish plant for manu-

facturing concrete building blocks, tile curbing, ornamental columns, etc.; drying shed to be 30x80 feet.

## COTTON COMPRESSES AND GINS

Ga., Tifton.—J. W. Hollis will rebuild cotton gin recently reported burned; loss \$5000.

S. C., Bennettsville.—John L. McLaurin will rebuild cotton gin and flour mill reported burned; will erect three-story ginhouse and a grist mill; frame; cost \$5000; will install three-press mill and grist-mill machinery; date of opening machinery proposals not set.

Tex., Greenville.—Hubbell, Slack & Co., S. J. Vines, superintendent, will rebuild cotton gin recently reported burned; will erect ordinary fireproof building to cost \$8000; will install machinery; daily capacity, 70 bales; G. R. Brown, architect and engineer.

## COTTONSEED-OIL MILLS

Ark., Texarkana.—Arkansas Cotton Oil Co. purchased site and will erect cottonseed-oil mill to replace burned plant.

Ga., Cuthbert.—Cuthbert Oil Co. is continuing enlargement of mill; plant to be three-press mill by fall of 1910; R. L. Walker, manager.

Tex., Thorndale.—Thorndale Oil Mill Co. incorporated with \$25,000 capital stock by H. C. Myer, E. L. Rasberry and W. A. Allcorn.

Tex., Whitesboro.—Whitesboro Cotton Oil Co., S. R. Cockrill, manager, contemplates improvements to plant; cost \$5000.

## ELECTRIC-LIGHT AND POWER PLANTS

Ark., Little Rock.—Acting Mayor Tuohy recommended to City Council that city erect buildings for municipal electric-light plant and to serve as engine-house and stable; also recommended that proposed plant provide for 1000 lamps; cost of buildings estimated at \$45,000.

Fla., Green Cove Springs.—City voted issuance of \$45,000 water, light and street and sidewalk bonds. Address-The Mayor.

Md., Thurmont.—Citizens' Electric Light & Power Co. (recently reported incorporated by John R. Rouzer, Morris A. Birley and others) awarded contract at \$16,015 for erection of power-house and furnishing equipment.

Md., Urleville (not a postoffice).—Barnard Harper and Rev. John H. Beauchamp, both of Still Pond, Md., are promoting establishment of electric-light plant at Urleville which will generate electricity to light Still Pond, Betterton, Kennedyville and Lynch; cost \$12,000.

Miss., Ackerman.—City awarded contract to Walton & Wegner, Atlanta, Ga., to construct electric-light plant and water-works; N. A. Kramer, Magnolia, Miss., is engineer. (Lately mentioned. See "Water-Works.")

Okl., Apache.—City will vote November 9 on issuance of \$54,000 of bonds for construction of water-works, sewer and electric-light systems; city has engaged Southwestern Engineering Co., Oklahoma City, Okla., to furnish plans, specifications and estimate of cost of three systems; H. Peeper, Mayor.

S. C., Beaufort.—City voted issuance of bonds to construct electric-light plant. Address The Mayor.

S. C., Camden.—City wants to correspond with parties interested in franchise for electric-lighting system. Address The Mayor. (See "Machinery Wanted.")

S. C., Hartsville.—City will vote November 23 on ordinance authorizing Hartsville Electric & Water Co. to construct electric-light and power plant. Address The Mayor.

Tenn., Bristol.—Bristol Gas & Electric Co., S. M. Vance, general manager, has arranged, it is reported, to have another corporation expend \$250,000 for construction of water-power-electric plant to augment present facilities and provide for future needs; to transmit electricity for light, heat and power, delivering to substation near city at voltage of 10,000; understood construction will begin soon and be completed by July, 1910.

Tenn., Obion.—City will vote on issuance of \$30,000 of bonds for water-works and electric-light plant. Address The Mayor.

Tex., Canadian.—Canadian Water, Light & Power Co. incorporated with \$40,000 capital

stock by Avery Turner, J. E. Hurley, A. L. Conrad and H. E. Hoover.

Tex., Eagle Pass.—Eagle Pass Industrial League plans construction of steam-power-electrical plant, not water-power-electrical plant as lately reported; contemplates locating plant at coal mines (three miles from city) and utilizing waste coal for fuel; may also establish gas plant. (Other details reported lately.)

Tex., Elgin.—K. F. Leggett, Livingston, Tex., will establish electric-light and ice plant; has secured conditional franchise for former.

Tex., Lewisville.—Lewisville Light & Power Co. incorporated with \$2000 capital stock by Guy Bourland, Charles G. Thomas, J. M. Hendrix and others.

Va., Fort Myer.—War Department, office of W. W. Whitlode, constructing quartermaster, awarded following contracts in connection with installation of electric-lighting system at Fort Myer: Wiring buildings for electric lighting, installing watt meter connections and furnishing and installing fixtures in same buildings, J. F. Buchanan & Co., Philadelphia, Pa., \$14,788; constructing underground conduit system, with all man-holes and junction boxes for installation of electric-lighting system, McCay Engineering Co., 9 East Lexington St., Baltimore, Md., \$500; constructing underground and aerial system of transmission, primary, secondary and service lines, complete street-lighting system; furnishing and installing cut-outs, street-lamp poles and brackets, McCay Engineering Co., 9 East Lexington St., Baltimore, Md., \$14,300; furnishing and installing all tungsten lamps and apparatus for basement of building No. 8, National Electric Supply Co., 1330 New York Ave. N. W., Washington, D. C., \$466. (Lately noted.)

Va., Richmond.—Committee on electricity adopted recommendations of E. W. Trafford, consulting engineer, Chamber of Commerce Bldg., Richmond, for additional excavations at municipal electric plant to provide for possible future enlargements; also proposed to excavate for additional tailrace and to provide for wheel chamber, which would allow installation of 600-horse-power generator later, but committee has taken no action; new bids will be invited until November 22 for condenser system for plant, steam and water piping, boiler-feed pump and heater; bids for drainage system will also be opened at same time. (Recently mentioned.)

## FLOUR, FEED AND MEAL MILLS

S. C., Bennettsville.—John L. McLaurin will rebuild grist mill reported burned; will install machinery. (See "Cotton Compresses and Gins.")

## FOUNDRY AND MACHINE PLANTS

La., New Orleans.—Machinery.—Standard Supply Co. incorporated with \$100,000 capital stock by F. L. Joubert, W. K. DePass and G. A. Joubert.

Md., Baltimore.—Stoves, etc.—S. B. Sexton Stove & Manufacturing Co., 509-533 West Conway St., purchased adjoining property for addition to plant.

Mo., Kansas City.—Steel Scrapers, Grading Machinery, etc.—Kansas City Steel Scraper Co., Helst Bldg., F. W. Miller, president, will establish plant for manufacturing steel scrapers, grading machinery, steel and wood wheelbarrows, etc.; plant to consist of foundries, machine shops, steel scraper plant, car shops, power-houses, warehouses, etc.; cost of buildings \$750,000.

Mo., St. Louis.—Electric Elevators, etc.—American Electric Machine & Elevator Co. incorporated with \$10,000 capital stock by William A. Krauss and John W. Fience.

Mo., St. Louis.—Machinery.—Madill-Shroyer Engine Co. incorporated with \$10,000 capital stock by Charles A. Madill, Oliver H. Shroyer, Rogers E. Bellecour and others.

Okl., Enid.—Angles and Steel Posts.—American Angle & Steel Post Co. incorporated with \$50,000 capital stock by J. S. Kenefick, James W. Harrison and John C. Moore.

Tex., Bridge Material.—Texas Bridge & Equipment Co. incorporated with \$125,000 capital stock by A. Donnell Marshall, Richard R. Kenny and Wm. P. Shockley, all of Dover, Del.

Tex., Gainesville.—Iron Works.—Gainesville Iron Works, R. H. Dorsey, manager, will rebuild ice plant recently reported burned; brick construction.

Va., Norfolk.—Structural Iron, Castings, etc.—Berkley Foundry & Structural Co. Incorporated with A. J. Cuthrell president, Nathan Block, vice-president; W. H. C. Deal, secretary-treasurer.

### GAS AND OIL DEVELOPMENTS

Okla., Coalgate.—Bromide Oil Co. organized with \$50,000 capital stock by John Freeny and others to develop oil properties near Coalgate.

Okla., Muskogee.—Galbraith Drilling Co. Incorporated with \$10,000 capital stock by H. H. Galbraith, P. B. Macoughtry and C. B. Galbraith.

Okla., Tulsa.—St. Lawrence Oil Co. Incorporated with \$10,000 capital stock by E. R. Perry, Marion Dickerman and Mildred Dickerman.

Tex., Texas City.—Texas City Refining Co. Increased capital stock from \$150,000 to \$214,700.

W. Va., Beury.—Chapman Oil Co. Incorporated with \$50,000 capital stock by J. O. Chapman, Beury; W. M. Miller, Parkersburg, W. Va.; W. C. Nickell, Fayette, W. Va., and others.

W. Va., Charleston.—Albany Oil & Gas Co. Incorporated with \$50,000 capital stock by E. C. Dawley, F. H. Laird, F. Woodman and others.

W. Va., Charleston.—Albany Oil & Gas Co. Incorporated with \$50,000 capital stock by E. C. Dawley, F. H. Laird, F. Woodman and others.

### ICE AND COLD-STORAGE PLANTS

Ark., Little Rock.—Watson & Aven propose erection of five-story cold-storage and refrigerating plant; capacity of cold-storage plant, 150 cars.

Fla., Monticello.—Monticello Ice Co., Mrs. S. L. McCall, manager (recently noted to establish ice plant), will operate 10-ton plant; will erect \$150,000 structure, 29x87 feet in size.

Ky., Louisville.—Rohman Ice Co. changed name to Artic Ice Co. and increased capital stock from \$30,000 to \$100,000.

Miss., Jackson.—Central Oil Co., R. D. Peet, manager, will establish 20-ton ice plant.

Okla., Bartlesville.—Crystal Ice & Cold Storage Co. awarded contract to Pidsbury-Becker Engineering Co., St. Louis, for installation of 25-ton ice machine; will also erect cold-storage warehouse.

Okla., Chickasha.—Chickasha Ice & Cold Storage Co. will erect plant; awarded contract for 30-ton ice plant to Carbondale (Pa.) Machine Co.

Okla., Collinsville.—John Middleton will erect 20-ton ice and cold-storage plant; awarded contract for 50-ton refrigerating machine and ice-making system.

Okla., Edmond.—H. R. Hudson of Hudson Realty Co., Fredonia, Kan., contemplates establishment of ice plant.

Okla., Enid.—Company organized with \$100,000 capital stock by W. J. Trousdale, Newton, Kan.; E. B. Hooser, C. Phillips, both of Wichita, Kan.; W. A. Graves, Enid, and others to erect 100-ton ice plant.

Okla., Fort Towson.—Fort Towson Ice Co. Incorporated with \$8000 capital stock by T. H. Hair, W. H. Baldwin, W. W. Baldwin and others.

Okla., Holdenville.—W. M. Dunn will establish 15-ton ice plant.

Okla., Lindsay.—Lindsay Ice Co. organized to establish 10-ton ice plant; awarded contract for machinery to Creamery Package Manufacturing Co., Refrigerating Machine Department, Chicago, Ill.

Okla., Sapulpa.—Sapulpa Ice Co. will enlarge and improve plant; will install 35-ton ice-making system, new ammonia condensers, etc.; awarded contract for equipment to Arctic Ice Machine Co., Canton, O.

Okla., Sapulpa.—Wells-Sapulpa Packing Co. awarded contract to York (Pa.) Manufacturing Co. for 56-ton refrigerating plant, brine system; to be installed in proposed packing plant.

Tex., Chillicothe.—Chillicothe Ice Co. organized by E. M. Webb, A. C. Hale and others; will establish 10-ton ice plant.

Tex., Dalhart.—Dalhart Ice & Electric Co., S. E. Kellen, manager, contemplates doubling capacity (35 tons daily) of plant.

Tex., Elgin.—K. F. Leggett, Livingston, Tex., will establish ice and electric-light plants.

Tex., Gainesville.—Gainesville Ice Co. will erect ice plant to replace structure recently reported burned; brick; two stories.

Tex., Hillsboro.—Hill County Cotton Oil Co. will install equipment for 40-ton ice plant; machinery purchased.

Tex., McAllen.—R. S. Pershing reported to have purchased 10-ton ice machine of Kings-

ville (Tex.) Ice Co. and to install and operate same at McAllen.

W. Va., Shepherdstown.—Johnson & Miller Company, recently noted to establish ice and cold-storage plant, has placed order for six-ton plant, with 10-ton capacity boiler and engine; will incorporate with \$10,000 capital stock; will erect two-story frame building, with metal roof; size, 30x60 feet; cost \$1800. (See "Machinery Wanted.")

### IRON AND STEEL PLANTS

Tenn., Chattanooga.—Steel Plant.—Southern Steel Casting Co. Incorporated with capital stock of \$100,000 by John D. Key, John S. Fletcher, S. B. Strang, Chas. N. Fox and C. G. Milligan.

Tenn., LaFollette.—Iron Furnace, etc.—LaFollette Iron Co. Incorporated with \$500,000 capital stock; lately reported as having leased LaFollette Coal, Iron & Railway Co. to refine iron furnace, etc.

Va., Roanoke.—Iron Furnace.—Virginia Iron, Coal & Coke Co., Bristol, Va.-Tenn., will blow in iron furnace at East End.

### LUMBER-MANUFACTURING PLANTS

Ala., Anniston.—W. L. Little will establish lumber and planing mill.

Ala., Birmingham.—Acme Lumber & Coal Co. Incorporated with \$75,000 capital stock; Hampton S. Smith, president and treasurer; Ross C. Smith, vice-president; Charles Roberts, Jr., secretary.

Ark., Camden.—Camden Mill Co., L. Sparkman, president, recently noted to install 160-horse-power producer-gas engine, etc., will also erect 60x120-foot warehouse and three-room office building; cost of buildings, \$3500; company has expended about \$50,000 in improvements to machinery, etc., within past year.

Ark., Jonesboro.—Heading.—Jonesboro Heading Co., J. A. Borgman, secretary-treasurer, will operate plant with daily capacity of 3000 sets heads. (Recently noted incorporated.)

Ark., Jonesboro.—C. D. Martin sold to Northern capitalists 2380 acres of timber land near Jonesboro.

Ark., Vanderhoof.—Spencer Lumber Co. Incorporated with \$25,000 capital stock; S. A. Richeson, president.

Fla., Fivay.—H. M. Atkinson, Preston Arkwright, Martin Amorous, all of Atlanta, Ga., and others purchased interest in Aripka Saw Mills.

Fla., Jacksonville.—Pittsburg Lumber Co. Incorporated with \$25,000 capital stock by C. E. Martindale, A. Ligon and R. A. McClintock.

Ga., Murray County.—Murray County Mining Co., F. L. Miller, president, Dalton, Ga., will develop timber and mineral lands in Murray county.

Ky., Breathitt County.—Holley & Stephenson, Charleston, W. Va., have had 25,000 acres of timber land surveyed in Breathitt county, Kentucky, by Robert and Charles Venable, Charleston, W. Va.; reported as to develop.

Ky., Louisville.—C. C. Mengel & Bro. Company will erect addition to plant and equip as veneer mill; will install four veneer saws, slicers, etc.; cost \$50,000; plans by John B. Hutchins, Louisville.

La., Estherwood.—Stilly & Callahan will establish sawmill.

La., Hackley.—Armbricht Lumber Co., Ross Bldg., Hattiesburg, Miss., has not yet matured plans for operations at Hackley; is Southern representative of Flint, Erving & Stoner Co., Pittsburg, Pa. (Recently noted to have purchased timber lands.)

La., Midland.—Callahan Lumber Co., Ltd., will erect small sawmill on Bayou Plaquemine; daily capacity 10,000 feet.

La., New Orleans.—Opdenweyer-Fischer Cypress Co. Incorporated with \$200,000 capital stock by C. B. Fischer, John W. Opdenweyer, Frank M. Opdenweyer and Elvin N. Moore; reorganization of Opdenweyer Cypress Lumber Co.; has purchased tract at Sorrento, La., containing 120,000,000 feet of cypress timber, and has, it is reported, awarded contract for erection of sawmill with daily capacity of 75,000 feet of lumber. (Recently mentioned.)

La., Patterson.—F. B. Williams Cypress Co. has placed order with Grand Rapids Veneer Works, Grand Rapids, Mich., for installation of four large kilns; to have concrete foundation, brick and tile walls and concrete and tile roof; installation to be

supervised by F. H. Kelly, manager drykilm department, Grand Rapids Veneer Works.

La., Ringgold.—S. M. Tomme & Son have purchased machinery for lumber plant recently noted to be established; daily capacity 20,000 feet yellow pine lumber.

Miss., Clarksdale.—Clarksdale Manufacturing Co. organized with \$10,000 capital stock by R. H. Crutcher, H. E. Milles and Geo. H. Rice.

Miss., Gifano.—Reynolds & Ellis Lumber Co., Hattiesburg, Miss., will establish pine sawmill with capacity of 30,000 feet of lumber daily, to develop 13,000,000 feet of stumpage in Jones, Smith and Jasper counties.

Miss., Tylertown.—Pike County Lumber Co. Incorporated with \$150,000 capital stock by F. H. Cline, A. W. Cline, R. P. Holmes and R. S. Holmes; acquired holdings of Edwards-Hinds Lumber Co. in Pike county and will construct \$50,000 mill at Lexie, Miss.

Mo., Kansas City.—Jacob Timber Co. Incorporated with \$300,000 capital stock by Duval Jackson, James H. Petty, Joseph B. Brinkley and others.

Mo., St. Louis.—Drake Lumber Co. Incorporated with \$15,000 capital stock by R. E. Drake, Webster Groves, Mo.; F. S. Burbee and W. E. Rauch, both of St. Louis.

N. C., China Grove.—Gray Veneer & Panel Co. will install additional machinery.

N. C., Nashville.—Parker & Whitaker Lumber Co. Incorporated with \$25,000 capital stock by I. R. Parker and others.

Okla., Bartlesville.—Kidd & Dwelle Lumber Co. Incorporated with \$10,000 capital stock by W. A. Kidd, A. E. Dwelle and May Kidd.

Okla., Elk City.—A. Dean Lumber Co. Incorporated with \$25,000 capital stock by A. J. Peavey, Mansfield, La.; S. G. Sample, Arthur Dean, both of Elk City, and M. S. Foster, Hydro, Okla.

Okla., Putnam.—Putnam City Lumber Co. Incorporated with \$20,000 capital stock by E. J. Dupree, Sulphur, Okla.; E. I. Newblock and J. E. Thompson of Oklahoma City, Okla.

S. C., Ulmers.—Saltkeatchie Lumber Co., J. H. Schofield, president, 1019 Pennsylvania Bldg., 15th and Chestnut Sts., Philadelphia, Pa., will rebuild plant at Ulmers recently reported burned; will use original plans; has commenced construction and contemplates completion and operation within 90 days.

Tex., Houston.—Bland & Fisher Lumber Co. Incorporated with \$75,000 capital stock by G. B. Fisher, S. S. Day, J. J. Bland and L. A. Cottingham.

Tex., Lubbock.—West Plains Lumber Co. Incorporated with \$20,000 capital stock by J. R. Campbell, George J. Hydspeth and W. J. Leeper.

Tex., Trinity.—Thompson Bros., Houston, Tex., will establish sawmill; recently purchased saw mill of Sam Stanford, near Willard, Tex., and will install at new plant.

Tex., Wichita Falls.—Patterson-Sanders Lumber Co. Incorporated with \$15,000 capital stock by T. F. Patterson, Jr., E. E. Sanders and C. C. Huff.

### MINING

Ala., Attalla.—Iron.—J. A. Durfee and C. E. Stewart, both of Gadsden, Ala., purchased from D. P. Montague, Chattanooga, Tenn., entire mining plant, consisting of John S. Moragne ore mines, 120 acres of land, easements, rights of way, machinery, tools, etc.

Ga., Murray County.—Murray County Mining Co., F. L. Miller, president, Dalton, Ga., will develop mineral and timber lands in Murray county.

Mo., Carthage.—Lead and Zinc.—Durby Lead & Zinc Co. Incorporated with \$100,000 capital stock by John Durby, R. E. Frey, S. A. Stuckey and others.

Mo., New Cambria.—Gold.—Pioneer Gold Mining Co. Incorporated with \$100,000 capital stock by David J. Reed, Gustave Yager, Hugh T. Evans and others.

Mo., St. Louis.—Iron.—Flory Carry Iron Co. Incorporated with \$50,000 capital stock by A. T. Morey, F. L. Morey and O. T. Ledford.

Tenn., Ducktown.—Copper.—Axley Copper Co. organized with \$100,000 capital stock by W. W. Axley, J. B. F. Lowrey, Paul Campbell and others, all of Chattanooga, Tenn.

Tenn., Knoxville.—Marble.—Royal Marble Co. Incorporated with \$10,000 capital stock by J. C. Kinkaid, John P. Kern, Charles M. Kern and others.

W. Va., Marshall County.—Sand.—Crystal Sand Co. Incorporated with \$15,000 capital stock by D. C. Haskins, W. H. Cochran, both of Wheeling, W. Va.; J. Howard Holt, Moundsville, W. Va., and others; office, Wheeling, W. Va.; main works, Marshall county.

### MISCELLANEOUS CONSTRUCTION WORK

Ark., Helena.—Levee.—Commissioners Cotton Belt Levee District No. 1, Greenfield Quarles, secretary, will open bids November 24 for construction of 100,000 cubic yards of levee work. (See "Machinery Wanted.")

Ark., Paragould.—Drainage.—Final details have been completed pertaining to financing of Cache River Drainage District No. 1; canal will begin at Stonewall, Ark., and extend 14 miles southwest to Cache River, draining about 25,000 acres of land; Wills & Son of Paragould are contractors; \$90,000 bonds issued. (Lately mentioned.)

Fla., Fort Pierce.—Docks.—St. Lucie county will vote December 1 on issuance of \$200,000 of bonds to construct certain public docks and hard-surface roads. Address County Commissioners.

Fla., Mayport.—Harbor Work.—United States Government awarded contract to R. G. Ross, Jacksonville, Fla., to build shore protections in St. John's River at New Berlin and St. John's Bluff, located near mouth of harbor at Mayport; work will consist of revetting short line at places named by laying facine mattress and covering same with stone; material will consist of closely compacted facines of wood brush, firmly bound together at intervals with steel wire; this is to be covered with stone; estimated that 6000 square yards of mattress and 5000 cubic yards of stone will be required; cost \$25,000.

La., Mandeville.—Breakwater.—City is considering election to vote on issuance of \$20,000 of bonds for construction of breakwater and belt shell road. Address The Mayor. (Mentioned in September.)

La., New Orleans.—Arch.—City is considering construction of ornamental electrical arch on Canal street; Allison Owen of New Orleans prepared plans calling for steel and metal arch estimated to cost \$10,000; Martin Behrman, Mayor; W. J. Hardee, City Engineer.

Miss., Gulfport.—Breakwater.—City will construct 400 or 500 feet of wooden breakwater along West Beach street; bids to be opened November 25; L. Lopez, chairman Street Committee. (See "Machinery, etc., Wanted.")

Miss., Natchez.—Levee.—Government has awarded contract to O. A. Gibson, Geismar, La., for 130,000 yards of work on Gem levee and 90,000 yards on levee north of Baton Rouge.

Mo., Kansas City.—Subway.—Kansas City Terminal Co., H. L. Harmon, president, will construct subway under tracks at Paseo Driveway. This is made necessary by adoption of plans by Park Board for widening Paseo Driveway from 50 to 200 feet.

Tenn., Lafayette.—Drainage.—City engaged A. J. Bright, 602½ Church St., Nashville, Tenn., to make plans for drainage of natural pond recently mentioned; will require about 1200 feet 8 or 10-inch tiling; ditch to be cut three or more feet deep; concrete or cement joints; contract to be let; contractor to furnish material.

Tex., Fort Stockton.—Irrigated Lands.—Fort Stockton Irrigation Land Co. contemplates beginning work early in 1910 on ditching of 22,000 to 25,000 additional acres land; date for opening bids not set; company has about 5000 acres under ditches; F. O. Ray, engineer in charge, 204 Century Bldg., Denver, Col. (Company previously noted incorporated with \$150,000 capital stock by V. P. Brown and Judge C. C. Clamp of San Antonio and others.)

### MISCELLANEOUS ENTERPRISES

Ala., Birmingham.—Safes, Fixtures, etc.—Alabama Safe & Fixture Co. Incorporated with \$5000 capital stock; Henry H. Irvin, president; Claude E. Bennett, vice-president; Reuben W. Ogburn, secretary-treasurer.

Ala., Columbia.—Hardware.—Columbia Hardware Co. Incorporated with \$5000 capital stock by J. N. Cureton, R. L. Collier, A. T. Marchman and others.

Ala., Gadsden.—Land Improvement.—Glenwood Land & Improvement Co. Incorporated with \$10,000 capital stock; C. E. Baxter, president; Thos. U. Walter, vice-president; M. M. Ullman, secretary and general attorney; purchased 334 acres of land, and will develop as residential section.

Ala., North Birmingham.—Park Improvements.—City voted \$105,000 of bonds for purchase of land for and improvements to parks. Address The Mayor.

Ark., Hot Springs.—Mineral Springs.—De Soto Mineral Springs Co. Incorporated with \$50,000 capital stock by B. M. Hypes, George Homan, T. E. Holland and others.

Ark., Little Rock.—Coffee-roasting Plant.—



Fletcher Coffee & Spice Co. will erect building and equip as coffee-roasting plant.

Ark., Oil City—Mineral, Agricultural and Timber Lands.—Oil City Gas & Diamond Co. incorporated with \$50,000 capital stock; D. W. Thom, president; John Thom, vice-president; S. L. France, secretary-treasurer.

Ark., Wynne—Mercantile.—Union Agency incorporated with \$25,000 capital stock by E. W. Ellis, J. W. McElroy, Sr., J. A. Spain and others.

D. C., Washington—Printing Plant.—Lewis M. Thayer, 525 13th St. N. W., purchased building at 507 13th St. N. W. and will remodel for printing plant, including plate-glass front on second floor and other improvements.

D. C., Washington—Publishing.—National Capital Press incorporated with \$15,000 capital stock; H. E. Jenks, 425-429 Bond Bldg., president; O. T. Wright, 1412 S St. N. W., vice-president; C. H. Ridenour, 425-429 Bond Bldg., secretary-treasurer.

Fla., Pensacola—Construction.—Keynton Construction Co. incorporated with \$10,000 capital stock; A. J. Keynton, Montgomery, Ala., president; F. M. Blount, vice-president; Robert Elsen Schmidt, secretary-treasurer, both of Pensacola.

Fla., St. Petersburg—Land Colonization.—Largo Improvement Co. organized by R. E. Flicher of California (president); M. W. Ulmer, Largo, Fla.; G. R. Sims, 514 Commercial National Bank Bldg., Chicago, Ill., and others; purchased 40,000 acres of land on Pinellas Peninsula, near St. Petersburg, and will colonize; is having land surveyed and subdivided into 5, 10, 20 and 40-acre farms; main office, Chicago, Ill. (Recently mentioned.)

Ga., Atlanta—Electrical Apparatus.—H. P. Keane Company incorporated with \$10,000 capital stock by H. P. Keane and J. J. Bateman.

Ga., Atlanta—Drugs.—Lamar & Rankin increased capital stock from \$100,000 to \$200,000.

La., Lake Charles—Sporting Goods, etc.—Thomas Music & Sporting Goods Co. incorporated with \$10,000 capital stock; Ira Thomas, president and general manager; W. G. See, vice-president; J. W. Willis, secretary; H. H. See, treasurer.

Ga., Rome—Steam Laundry.—D. C. Hancock, Jule Glover and others are interested in organization of company with capital stock of from \$10,000 to \$25,000 to establish steam laundry.

Ga., Savannah—Land Improvement.—Forest City Real Estate Co. incorporated with \$50,000 capital stock by Isaac Silver, J. Liebenstein, M. Wilensky and W. Weitz.

Ga., Savannah—Land Improvement.—Prudential Investment & Development Co. incorporated with \$500 capital stock by George A. Mercer, J. M. Lang, O. S. Abrams and George W. Hunt.

Ky., Buichel—Land Improvement, etc.—Buichel Realty Co., recently reported incorporated (under Louisville, Ky.), contemplates development of Buichel (suburb of Louisville) as manufacturing town; will also conduct general real-estate business; Chas. J. Fegenbush, president; Edw. J. Fegenbush, vice-president; John Buichel, Jr., secretary; Wm. F. Fegenbush, treasurer; capital stock, \$15,000.

Ky., Louisville—Land Improvement.—Imperial Realty Co. incorporated with \$100,000 capital stock; L. Levy, president; Benjamin Straus, vice-president; Henry Levy, treasurer; Joseph Sabel, secretary.

Ky., Louisville—Auto Cars.—Van DaGrift Auto Car Co. incorporated with \$10,000 capital stock by Lewis J. Perkins, George W. Buck and William J. Van DaGrift.

Ky., Louisville—Sewer Pipe.—Louisville Sewer Pipe Co. incorporated with \$5000 capital stock by Robert E. Brandels, L. Frankel and F. B. Moores.

Ky., Louisville—Land Improvement.—Frank Fehr, Jr., purchased 1½ acres of land and is having plans prepared by Olmsted Bros., Brookline, Mass., for improving and beautifying for building sites.

La., New Orleans—Garage.—A. Aschaffenburg will, it is reported, erect garage; white glazed front.

La., New Orleans—Laundry.—Charity hospital will erect laundry building and equip with \$5000 worth of machinery. (See "Miscellaneous Structures.")

La., New Orleans—Automobile Livery.—Levand's Auto Livery Co. incorporated with \$20,000 capital stock; Louis Levand, president; Manuel Levand, vice-president; Jacob Levand, secretary-treasurer.

La., New Orleans—Land Improvement.—Uniola Real Estate Co. incorporated with \$50,000 capital stock by E. Leonce Perrin, S. M. Fortier, Emilian Perrin and others.

Md., Baltimore—Fiddis-McCrea Company incorporated with \$10,000 capital stock by Preston Fiddis, 1849 West North Ave.; Read A. McCaffrey, 511 Law Bldg., and George McCrea.

Md., Baltimore—Land Development.—Through agency of Edwin L. Turnbull, 12 East Lexington St., the Moale estate on Liberty Heights avenue will be developed; site contains 230 acres, and will be subdivided into 250 lots and otherwise improved for residential suburb to be known as Villanova.

Miss., Gulfport—Publishing.—Gulfport Publishing Co. incorporated with \$10,000 capital stock by Hall W. Sanders, J. W. Bradley, M. P. Bouslog and others.

Mo., Kansas City—Garage.—S. E. Montgall will erect garage; brick; cost \$16,000.

Mo., Kansas City—Construction.—Unit Construction Co. incorporated with \$100,000 capital stock by James McD. Hunter, Louis J. Kempf, William L. Swift and others.

Mo., Kansas City—Bridge Construction.—Missouri Bridge Co. incorporated with \$25,000 capital stock by David Wilson, A. G. Tauber and A. H. Tauber.

Mo., St. Louis—George G. Graham purchased 10½ acres of land; will grade, subdivide into 53-foot lots, erect residences, etc.; cost of improvements \$200,000.

N. C., Beaufort—Land Improvement.—Look Out Realty Co. incorporated with \$125,000 capital stock by Horace M. Hamlin, M. Leslie Davis and Charles L. Abernathy.

N. C., Charlotte—Land Improvement.—Switzerland Company has elected Heriot Clarkson president, A. C. Summerville vice-president, John B. Alexander secretary-treasurer; will develop 1100 acres of land (recently noted purchased) into lots for summer colony; capital stock, \$25,000; company is having roads through property surveyed by David H. S. Tappan after plans by W. L. Spoon, State Highway Engineer.

N. C., Red Springs—Garage, etc.—Motor & Machine Co. will operate garage and deal in automobiles and farm machinery; will erect 40x60-foot brick building; may install gasoline engine; James A. Love, president; L. M. Cook, secretary-treasurer. (Recently reported incorporated, with \$25,000 capital stock, under "Foundry and Machine Plants.")

N. C., Rowland—Publishing.—San Publishing Co. incorporated by W. F. Bristow and others.

N. C., Salisbury—Land Improvement.—Royal Gorge Co., Richard Eames, Jr., president, recently reported incorporated with \$10,000 capital stock, purchased tract of land on Blue Ridge Mountains about 18 miles east of Asheville; will develop as "Swiss Village," summering place for Salisbury people; erection of dwellings and hotel and construction of roads, park and lake contemplated.

N. C., Tarboro—Land Improvement.—Howard-Roberson Land Co. incorporated with \$25,000 capital stock by W. O. Howard and others.

N. C., Winston-Salem—Mercantile.—Phelps Company incorporated with \$25,000 capital stock by R. Duke Phelps, Charles M. Phelps and J. Walter Dalton.

Okla., Ada—Mercantile.—Texas Department Store incorporated with \$75,000 capital stock by F. R. Smith, J. D. Tanner, George Collins and others.

Okla., Ardmore—Townsite.—Wheeler Townsite Co. incorporated with \$10,000 capital stock by J. E. Hamilton, J. W. Hannah and W. T. Rexroat.

Okla., Enid—Groceries.—Model Grocery Co. incorporated with \$10,000 capital stock by John J. Shaw, W. C. Rogers, A. L. Shaw and B. W. Rogers.

Okla., Hobart—Garage.—Scott Auto Co. will erect garage; 50x50 feet.

Okla., Milroy—Land Improvement.—Milroy Townsite Co. incorporated with \$10,000 capital stock by Winn C. Leftwich, Loco, Okla.; P. K. Miller, Cornish, Okla.; John E. Miller, Milroy, and others.

Okla., Muskogee—Office Supplies.—Muskogee Office Supply Co. incorporated with \$5000 capital stock by A. E. O'Brien, L. R. O'Brien, S. A. Charles and J. Sam Morton.

Okla., Muskogee.—Muskogee Crushed Stone Co. increased capital stock from \$10,000 to \$15,000.

Okla., Okmulgee.—Henryetta Fuel Co. incorporated with \$15,000 capital stock by R. T. Potter, W. Thornburgh, both of Okmulgee, and C. H. Kellogg, Henryetta, Okla.

Okla., Sapulpa—Construction.—Southwestern Construction Co. incorporated with \$10,000 capital stock by Nicholas D'Onfro, Daniel D'Onfro, W. S. Clark and others.

S. C., Spartanburg—Garage.—Spartanburg Automobile Co. (J. F. Cantrell and Chas.

Parker) will erect two-story garage; size 40x72 feet; cement floor, brick walls and gravel roof; cost \$3000; automobile-repairing machinery installed.

Tenn., Chattanooga—Transfer.—Tennessee-Georgia Transfer Co. incorporated with \$3000 capital stock by W. H. Shepherd, Jr., W. H. Payne, W. H. Reddick and J. C. Smith.

Tenn., Chattanooga—Dairy.—Spragues Dairy Co., 33 West 13th St., will erect brick and frame addition; plans by J. G. Barnwell, The Elizabeth, Chattanooga; construction by day's work.

Tenn., Livingston—Real Estate, etc.—Livingston Realty Co. organized with \$10,000 capital stock to deal in real estate, etc.; contemplate erection of concrete and brick business blocks; B. L. Speck, president; B. Poston, vice-president and general manager, to be addressed.

Tenn., Memphis—Supplies.—Home Supply Co. incorporated by J. T. Ennis, J. H. Alston, C. E. Hunt, T. F. Kelly and others.

Tenn., Memphis—Contracting.—W. P. O'Keefe Company, recently reported incorporated with \$25,000 capital stock, will continue contracting and building; concrete-block construction, etc.

Tenn., Shelbyville—Laundry.—J. C. Tune, Jr., will erect laundry plant to be occupied by Bedford Laundry; one story; 30x60 feet; brick engine-room in rear.

Tex., Amarillo—Lands.—Swenson Land Co., Chas. W. Swenson, Jr., president, corner Monroe and Dearborn Sts., Chicago, Ill., purchased property of Toyah Valley Irrigation Co., consisting of lakes, reservoirs, canals, etc., in Reeves county; also purchased lands, including townsite of Balmorhea, and alfalfa and fruit-raising tracts; consideration, \$375,000.

Tex., Bay City—Townsite.—San Barnado Townsite Co. incorporated with \$25,000 capital stock by W. G. Andes, G. M. Glick and E. M. Miller.

Tex., Dallas—Townsites.—Trinity Townsite Co., Praetorian Bldg., recently reported incorporated with \$25,000 capital stock, owns and will continue development of townsites on Gulf, Texas & Western Railway; towns include Jermyn, Loving, Jean, Olney and Megargel; others to be developed as railroad reaches them; president, Roy C. Megargel, New York; vice-president and general manager, R. B. Cain, Dallas; secretary-treasurer, W. Frank Knox, also of Dallas.

Tex., Dallas—Hardware.—Adams-Whyte Hardware Co. incorporated with \$10,000 capital stock by A. J. C. Whyte, E. W. Frazer and James R. Adams.

Tex., Fort Worth—Publishing.—Southwest Magazine Co. incorporated with \$10,000 capital stock by W. N. Beard, R. L. Pachal and J. G. Beard.

Tex., Galveston—Land Improvement.—Galveston Development Co. increased capital stock from \$25,000 to \$50,000.

Tex., Greenville—Mercantile.—Perkins-Patterson Company incorporated with \$50,000 capital stock by S. B. Perkins, A. W. Patterson and W. W. Terry.

Tex., Houston—Cattle.—Bland & Fisher Cattle Co. incorporated with \$40,000 capital stock by G. E. Fisher, J. J. Bland, J. W. Bland and H. F. Bland.

Tex., Houston—Blueprints and Supplies.—Texas Blueprint & Supply Co. incorporated with \$30,000 capital stock by R. C. Watkins, W. P. Cottingham and G. R. Cottingham.

Tex., Houston—Girten-Russ Supply Co., 110 Main St., recently reported incorporated with \$5000 capital stock, will conduct jobbing business; J. B. Russ, president; C. E. Girten, vice-president; F. A. Helbig, secretary-treasurer. (See "Machinery Wanted.")

Tex., Houston—Steam Laundry.—W. Davis & W. E. Davis will establish steam laundry; machinery purchased.

Tex., Houston—Steam Laundry.—Model Laundry Co. has plans by Olie J. Lorehn, Houston, for proposed plant; three stories and basement; reinforced concrete; pressed brick facing; native stone trimmings; stable and sheds in rear; engines and boilers in basement; cost of building and machinery, \$100,000.

Tex., Marlin—Hot Wells.—Marlin Hot Wells Co. incorporated with \$25,000 capital stock by W. D. Kyser, S. H. Johnson and J. C. Fountain.

Tex., San Antonio—Supplies.—Merchants' Supply Co. incorporated with \$10,000 capital stock by Louis Goldman, Alvin W. Goldman and Joseph Berlin.

Va., Blackstone—Publishing.—Courier Corporation incorporated with \$15,000 capital stock; W. A. Land, president; P. E. Harris, vice-president; L. S. Epps, secretary-treasurer.

Va., Norfolk—Stock Yards.—Norfolk Horse & Mule Co. organized with \$50,000 capital stock; W. C. Cobb, president; will take over, reopen and operate Union Stock Yards.

Va., Norfolk—Automobiles.—Tidewater Automobile & Garage Co. incorporated with \$15,000 capital stock; C. P. Weston, president; G. F. Burke, vice-president and secretary.

Va., Richmond—Optical Goods.—Hanna-Hall Optical Co. incorporated with \$3000 capital stock; E. R. Tucker, president, Richmond; F. C. Hanna, vice-president, Roanoke, Va.; G. L. Hall, secretary-treasurer, Norfolk, Va.

Va., Roanoke—Motor Cars.—Virginia Motor Car Co. incorporated with \$25,000 capital stock; D. W. Presinger, president; W. P. Crampacker, vice-president; James Frantz, secretary-treasurer.

Va., Roanoke—Horse Sales.—Roanoke Horse Sales Co. incorporated with \$10,000 capital stock; H. N. Dyer, president; D. W. Flicker, vice-president; Henry Scholz, secretary.

W. Va., Gary—Mercantile.—Anawalt Supply Co. incorporated with \$10,000 capital stock by Edward O'Toole, Howard N. Eanenson, A. E. Morgan and others.

W. Va., Keyser—Land Improvement.—Potomac Realty Co. incorporated with \$5000 capital stock by W. H. Barger, Warren Harr, Harry V. Whip and others.

W. Va., Morgantown.—The Morikell Company, Box 604, organized to deal in coal lands and real estate; members are F. W. Gerchow, P. G. Armstrong and G. B. Hartley.

W. Va., Wilsonburg—Supplies.—Farmers' Store & Supply Co. incorporated with \$10,000 capital stock by L. M. Allen, H. A. Swiger, J. E. Rector and others.

W. Va., Wilsonburg—Mercantile.—Farmers' Store & Supply Co. incorporated with \$10,000 capital stock by L. M. Allen, H. A. Swiger, J. E. Rector and others.

## MISCELLANEOUS MANUFACTURING PLANTS

Ala., Birmingham—Moving picture Films.—Southern Amusement & Supply Co. incorporated with \$100,000 capital stock; A. R. Boone, president; H. B. Abernathy, vice-president; C. F. Bailey, secretary; T. Williams, treasurer.

Ala., Birmingham—Cider and Vinegar.—Bordeaux-Weatherby Cider & Vinegar Co. incorporated with \$6000 capital stock; T. H. Weatherby, president; P. H. Bordeaux, vice-president; H. C. Mead, secretary-treasurer.

Ala., Birmingham—Moving picture Films.—Birmingham Film Supply Co. incorporated with \$30,000 capital stock; M. H. Newsome, president; E. E. Newsome, vice-president; A. C. Bromberg, secretary-treasurer.

Ala., Montgomery—Coffee Plant.—Mutual Coffee Co. incorporated with \$25,000 capital stock; J. C. Haas, president and general manager; Sidney G. Weil, vice-president and treasurer; H. P. Osment, secretary.

Ark., Fort Smith—Novelties.—Fort Smith Novelty Co. incorporated with \$50,000 capital stock by K. D. Smith (president), William Mansell, J. W. Adams and J. L. Kelly.

D. C., Washington—Cigars.—Henry T. Offertinger, 504 9th St., will erect four-story building; mill construction; cost \$6000; size 30x50 feet; manufactures cigars; Wm. H. Dyer, architect and engineer.

Fla., Fairfield—Fertilizer.—G. W. Sanders Fertilizer Co. organized with \$100,000 capital stock; G. W. Sanders, Jacksonville, Fla., president; L. R. Woods, Tampa, Fla., secretary-treasurer; will establish fertilizer factory; main office, Jacksonville.

Fla., Jacksonville—Turpentine.—United Turpentine Co., 618 Atlantic National Bank Bldg., is name of company recently noted organized with \$25,000 capital stock to establish plants to extract turpentine from sawdust; will operate at sawmills cutting not less than 25,000 feet yellow pine; J. G. Gardner, president; Dr. Chas. A. Hopkins, vice-president; company will erect frame buildings covered with fireproof material, of mill construction, costing within \$1000 each; will install retorts, sawdust chains, vacuum stills and condensers; estimated product, 20 to 100 barrels turpentine per day within a year. (See "Machinery Wanted.")

Fla., Jacksonville.—John J. McLean and Henry Elliott, Florida, Ala., purchased 20,000 acres of timber land and will establish turpentine plant.

Fla., Orlando—Roof Paint.—Orlando Water & Light Co. will install machinery for manufacturing roof paint from refuse products of gas factory.

Fla., St. Petersburg—Gas Plant.—St. Petersburg Gas Co. has franchise to establish gas plant.

Ga., Barnesville — Bottling. — Barnesville Bottling Works incorporated with \$3500 capital stock; W. H. Chambers, president; H. G. Jordan, secretary-treasurer; Windsor Carreker, general manager.

Ga., Dublin — Acid Phosphate. — Consolidated Phosphate Co., Izzie Bashinski, president, will establish plant recently mentioned; will erect 100x400-foot wooden building of ordinary construction; architect not selected; cost of building \$15,000 to \$20,000; will install acidulating plant machinery costing approximately \$50,000; machinery proposals not yet advertised; daily capacity, 100 tons acid phosphate.

La., Bogalusa — Fiber Board, Boxes, etc. — Southern Wood Distilleries & Fiber Co., Arthur W. Handford, engineer and superintendent, Chicago, Ill., is understood to be completing arrangements to begin construction of proposed plant; to utilize waste material (of Great Southern Lumber Co.'s plant) in manufacturing fiber board, wrapping paper, boxes, etc.; initial capacity to be 50 tons per 24 hours and later to be increased to 100 tons; will equip with 1000-horse-power engine and electric lighting and power machinery; reported plant will occupy 25 acres of land and cost about \$7,000,000; main office of Great Southern Lumber Co. is at Buffalo, N. Y.

La., Gretna — Lard and Soap. — N. K. Fairbanks Company (main office, Chicago, Ill.) contemplates erection of plant to replace present structure; also contemplates establishment of canning plant in connection.

La., New Orleans — Colors. — P. Philippe Briol is promoting establishment of color factory.

Md., Baltimore — Oakum. — Baltimore Oakum Co., 601 South Luzerne St., will repair damages to plant reported burned; loss about \$7000; manufactures carded and machine-spun marine and plumbers' oakum.

Mo., Kansas City — Bread. — Consumers' Bread Co. purchased site and will erect plant.

Mo., Kansas City — Medicine. — Greek Balsam Co. incorporated with \$20,000 capital stock by R. H. Lee, D. C. Kirkland and F. J. Ivers.

Mo., Moberley — Implements, etc. — Viron Fence & Implement Co. incorporated with \$100,000 capital stock by D. R. Viron, D. M. Simpson and others.

Mo., Nevada — Cornices. — W. F. Norman Cornice Manufacturing Co. will rebuild plant reported burned; loss \$150,000.

Mo., Sedalia — Water Coolers, etc. — Missouri Water Cooler & Filter Co. (recently reported incorporated with \$30,000 capital stock) purchased brick building at 622 East 5th street; has installed machinery; will manufacture water coolers and filters; J. J. Weber, Box 113, president; B. F. Weaver, secretary.

Mo., St. Louis — Hats. — Western Hat Manufacturing Co. incorporated by H. D. Miller, Mack Burnstine, A. Goralnic and M. Goralnic.

Mo., St. Louis — Aller-Wilmes Manufacturing Co. incorporated with \$125,000 capital stock by Arthur J. Lee, Eugene Hale, both of St. Louis; William F. Wilmes, Kansas City, Mo., and others.

Mo., St. Louis — Electrical Fixtures. — Gleeson-Brokaw Electric Co. incorporated by Thomas P. Gleeson, Paul V. D. Brokaw and Linn R. Brokaw.

N. C., Greensboro — Bakery. — J. E. Brandt will establish bakery.

N. C., Shelby — Composing and Line-casting Machines. — Cade Manufacturing Co. incorporated with \$50,000 capital stock by J. Y. Hamrick and others; will develop composing and line-casting machine invented by Rev. Baylus Cade.

Okla., Chickasha — Granite Plant. — Oklahoma Granite Co., Granite, Okla., purchased 20 acres of land and will, it is reported, establish granite plant.

Okla., Enid — Crude-oil Burners. — Invaluable Crude Oil Burner Co. incorporated with \$30,000 capital stock by R. J. Balch, H. E. Shepherd, M. A. Dennis and Blaine Acuff.

Okla., Oklahoma City — Ice-cream Cones. — Star Wafer Co. increased capital stock from \$10,000 to \$100,000.

S. C., Greenville — Candy. — Carolina Candy Co., recently reported incorporated, has rented building and will manufacture candy; E. R. Flesher, president; C. B. Flesher, secretary-treasurer. (See "Machinery Wanted.")

Tenn., Knoxville — Marble Mill. — Meadow Marble Mill Co. incorporated with \$15,000 capital stock by E. Nelson High, W. P. Washburn, John G. Duncan and others.

Tenn., Knoxville — Trousers. — Foster Bros.-Barnett Company, 302 Gay St., recently reported incorporated (under "Textile Mills"), will conduct trouser-manufacturing plant;

machinery installed; electric-power; \$30,000 capital; E. J. Foster, president and treasurer; W. H. Barnett, vice-president and secretary.

Tex., Abilene — Candy and Crackers. — Abilene 25,000 Club is interested in establishment of Texas Candy and Cracker Factory; company organized to erect \$25,000 building for plant; entire cost of plant, \$70,000.

Tex., Amarillo — Brooms. — Wm. C. Fosnot, 110 North Buchanan St., contemplates establishment of broom factory. (See "Machinery Wanted.")

Tex., Brownsville — Sugar Mill. — J. R. Allen, W. E. Pickens and Gavin L. Payne, all of Indianapolis, Ind., will cultivate sugar-cane and establish sugar mill.

Tex., Coleman — Hats. — R. K. Blackshear is preparing to establish hat factory.

Tex., Dallas — Staff Work. — Eastman & Johnstone Manufacturing Co. contemplates erection of additional building; 50x50 feet; two stories and basement; equipped with elevator, dryrooms, carriers for handling material, etc.; will install saws, band saws, motors, etc.; cost of building, \$15,000.

Tex., Dallas — Wheeler Manufacturing Co. has increased capital stock from \$20,000 to \$30,000 and changed name to Baker-Wheeler Manufacturing Co.

Tex., Dalhart — Stone. — Dalhart Stone Manufacturing Co. incorporated with \$15,000 capital stock by W. B. Slaughter, J. C. Galbraith, C. D. Patterson and others.

Tex., El Paso — Gloves. — D. D. Ferrell, Albuquerque, N. M., will, it is reported, establish plant for manufacturing gloves.

Tex., Houston — Sanitary Preparations. — Cremoline Manufacturing Co., St. Louis, Mo., contemplates establishment of plant for manufacturing stock remedies, sanitary preparations, etc.

Tex., Palestine — Creamery. — Lacy & Harrison awarded contract to L. G. McIntyre, Palestine, for erection of creamery.

Tex., Paris — Tobacco Factory. — J. T. Gatlin awarded contract for erection of \$2500 warehouse and tobacco factory; plans by E. B. Scott, Paris.

Tex., Victoria. — Novelties. — Oriental Novelty Co. incorporated by J. J. Murphy, J. J. Weider and Leopold Morris.

Va., Bristol — E. Gouge & Co., Bristol, Tenn., purchased site and will erect distillery and storehouse; distillery fixtures with capacity of 100 bushels daily purchased.

Va., Norfolk — Cider. — Continental Cider Co. incorporated with \$25,000 capital stock; J. L. Fentress, president; J. L. Barnes, vice-president; G. H. Rick, secretary-treasurer.

Va., Richmond — Blade Strop. — I. W. Irving & Co., 303 Mutual Bldg., contemplates manufacture of automatic razor and blade strop; contemplates placing order for manufacture at present; later will install machinery. (See "Machinery Wanted.")

W. Va., Benwood — Metallic Appliances. — Fleming-Bryant-Gray Company incorporated with \$10,000 capital stock by James M. Bryant, W. W. Gray, both of Benwood; A. W. Fleming, Fairmont, W. Va., and others.

W. Va., Fort Spring — Lime. — James E. Crawford, John S. Crawford, both of Lewisburg, W. Va., and others purchased D. Y. Huddleston's lime plant; will incorporate company to continue operations; will install limekiln with burning capacity of 100 barrels of lime daily; rock crusher and pulverizer; leased cliff of rock from Mrs. Lula Curry.

W. Va., St. Mary's — Pearl Buttons. — Harvey Chambers & Son, Amsterdam, N. Y., contemplate establishment of plant to manufacture pearl buttons.

### RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Va., Roanoke — Norfolk & Western Railway Co., Chas. S. Churchill, chief engineer, Roanoke, will not erect roundhouse at East Roanoke. (Recently incorrectly reported.)

### ROAD AND STREET IMPROVEMENTS

Ala., Birmingham. — Street Committee awarded contract to E. W. Jordan of Birmingham at \$45,920 for paving First avenue with brick; 23,500 square yards paving; 5000 linear feet curb; 300 linear feet circular curb.

Ala., Ensley. — City awarded contract to Mularky Contracting Co., Birmingham, Ala., to pave sidewalks under improvement ordinance 133. Public improvement committee introduced ordinance providing for paving Avenue E and 19th street at estimated cost of \$46,900; V. E. Ohl, City Engineer.

Ala., Huntsville. — City awarded contract to

R. S. Blome Company, Chicago, Ill., to pave Holmes street, distance of one and one-half miles, with granite block.

Fla., Fort Pierce. — St. Lucie county will vote December 1 on issuance of \$200,000 of bonds to construct hard-surface roads and certain public docks. Address County Commissioners. (Recently mentioned.)

Fla., Green Cove Springs. — City voted issuance of \$45,000 water, light, street and sidewalk bonds. Address The Mayor.

Fla., St. Petersburg. — Hillsboro County Commissioners awarded contract to James Cribbette of St. Petersburg for hard surfacing mile of road north and west of St. Petersburg.

Ga., Jackson. — Butts county will vote December 11 on issuance of \$15,000 of bonds for road improvements; J. O. Gaston, chairman Commissioners. (Recently mentioned.)

Ga., Rome. — City will reconstruct Fourth avenue and lay concrete sidewalks on both sides; has begun laying concrete sidewalks on both sides of East 6th street. Address The Mayor.

Ky., Ashland. — City awarded contract to Southern Bitulithic Co., G. M. Ingram, president, Nashville, Tenn., for 34,000 yards of bitulithic paving, 22,000 linear feet concrete curb and gutter, etc.; contract price, \$90,000.

Ky., Lexington. — F. T. Justice & Co. of Lexington have contract to construct concrete sidewalks, curbing and guttering on Park avenue; City Council passed ordinances ordering construction of curbing and guttering on Manchester street, sidewalks on Church, Main, Limestone, West 4th and other streets; P. P. O'Neill, City Engineer.

Ky., Newport. — City voted issuance of \$100,000 of bonds for street improvements; John W. Davis, City Clerk. (Recently mentioned.)

La., Jennings. — City awarded contract to De Jersey & Barnard of Jennings to lay about eight miles of concrete sidewalks and curbing; cost about \$30,000. (Lately mentioned.)

La., Mandeville. — City is considering election to vote on issuance of \$20,000 bonds for construction of belt shell road and breakwater. Address The Mayor. (Mentioned in September.)

La., Providence. — City will pave 34 blocks of sidewalks; bids to be opened November 15; T. J. Powell, Mayor. (See "Machinery Wanted.")

La., Winnsboro. — Franklin Parish Police Jury has increased tax, making \$12,000 annually available for road improvements; contemplates issuing bonds in 1910 for immediate work.

Miss., Columbus. — City contemplates paving business section; material not decided; E. S. Donnell, Mayor; city is experimenting with crude petroleum as dirt preventive; Chas. S. Wood, City Engineer.

Miss., Gulfport. — Harrison county will repair beach road (damaged by storm) extending for about 20 miles along beach from Biloxi to Pass Christian and construct bulkheads at intervals; Gulfport Traction Co. will construct 1200 feet of bulkhead of creosoted piling and lumber. Address County Commissioners.

Miss., Jackson. — Hinds County Board of Supervisors will construct one mile of road as experiment; cost \$2000; work to be done under supervision of George D. Marshall, superintendent of road construction.

Miss., Pascagoula. — Jackson County Board of Supervisors, Scranton, Miss., awarded contracts for road improvements.

Miss., Vicksburg. — City will pave Walnut, Drummond and Veto streets, total of 15 blocks; bids to be opened December 6; J. J. Hayes, Mayor. (See "Machinery Wanted.")

Mo., Kansas City. — Park Board adopted plans for widening Paseo driveway from 50 to 200 feet.

N. C., Asheville. — Buncombe county will construct one mile of sand-clay road as experiment. Address County Commissioners.

N. C., Hillsboro. — City issued \$10,000 of bonds for street improvements. Address The Mayor.

N. C., Burlington. — City awarded contract to Bowe & Page, Augusta, Ga., to grade and macadamize streets; \$25,000 available; Carolina Engineering Co., L. C. Carter, general manager, Burlington, is engineer; A. F. Barrett, Mayor. (Lately mentioned.)

N. C., Lexington. — Davidson County Commissioners authorized J. L. Ludlow, Winston-Salem, N. C., to proceed with construction of road through Arcadia and Midway townships for four miles, straightening old road and connecting Lexington and Salisbury roads at different points; cost \$2500.

N. C., Wilmington. — Board of Aldermen authorized sale of \$100,000 street-improvement bonds. Address The Mayor.

N. C., Winston-Salem. — City contemplates awarding contract to Atlantic Bitulithic Co., Mutual Bldg., Richmond, Va., to pave 4th and Spring streets with bitulithic.

Okla., Durant. — City awarded contract to E. C. D'Yarment, Oklahoma City, Okla., for paving two blocks each on First, Second and Third avenues with rock asphalt.

Okla., Guthrie. — Logan County Commissioners will consider calling election to decide upon construction of 12 miles of macadam roadway from Guthrie south to county line toward Oklahoma City.

Okla., Oklahoma City. — City will grade, pave, curb and drain Walker avenue; paving material to be sheet asphalt on five-inch Portland cement concrete base; bids to be opened November 22; Bob Parman, City Clerk. (See "Machinery Wanted.")

Okla., Oklahoma City. — City will open bids November 22 for grading Military and Lake avenues, 33d street, 30th street, etc.; Bob Parman, City Clerk. (See "Machinery Wanted.")

Okla., Oklahoma City. — City awarded contracts to Cleveland (Ohio) Trinidad Paving Co. at \$417,000 for paving about seven miles of streets, and to Western Paving Co., Oklahoma City, at \$1635 for paving 17th street, and at \$2496 for paving 2d street; Henry M. Seales, Mayor.

Okla., Ryan. — Jefferson county proposes to vote on issuance of \$10,000 road and bridge bonds. Address County Commissioners.

S. C., Greenville. — D. B. Traxler, chairman of committee, and associates arranging to macadamize North street; estimated cost, \$1500. Mr. Traxler and associates form one of several committees appointed to investigate cost and quality of street-paving materials, and will pave North street from Main to Richland Creek, three-quarters of mile, as experiment, in connection with city's proposed expenditure of \$300,000 to \$500,000 on street improvements. (See "Machinery Wanted.")

S. C., Greenville. — Mr. Goodwin, County Supervisor, has been authorized to expend (in addition to \$40,000 authorized) \$7000 for continuance of road improvements and bridge construction.

S. C., Society Hill. — J. C. Covington of Society Hill completed survey of proposed automobile road from Cheraw to Society Hill; Darlington and Chesterfield counties have contributed \$2000.

Tenn., Johnson City. — City awarded contract to S. R. Taylor of Johnson City at about \$1000 for grading West Ina avenue.

Tex., Sinton. — San Patricio county contemplates expenditure of \$10,000 in construction of roads during next 12 months; D. G. McGloin, County Clerk.

Tenn., Obion. — City will vote on issuance of \$15,000 of bonds for streets and sidewalks. Address The Mayor.

Tex., Ballinger. — Runnels county contemplates voting on issuance of \$100,000 of bonds for road improvements in Ballinger Precinct No. 1. Address County Commissioners.

Va., Clintwood. — Bids will be opened December 1 for grading, furnishing and placing necessary pipe and culverts on proposed road from Clintwood to Wise county line; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

Va., Norfolk. — Board of Control awarded contract to Faith Granite Co., Salisbury, N. C., at 4 1/2 cents per linear foot for 5000 feet of granite curbing.

Va., Portsmouth. — Norfolk county received bids until November 8 for work and material required for repairing and maintaining for one year roads and bridges embraced in Washington, Butts Road, Pleasant Grove and Deep Creek magisterial districts; Alvah H. Martin, County Clerk; F. L. Portlock, Road Engineer, 240 Monticello Ave., Norfolk, Va. (See "Machinery Wanted.")

Va., Spotsylvania. — Spotsylvania county voted issuance of \$40,000 for road improvements in Chancellor district and \$60,000 in Courtland. Address County Commissioners. (Recently mentioned.)

W. Va., Charleston. — Charleston, Union and Pocahontas districts of Kanawha county defeated issuance of \$135,000, \$30,000 and \$15,000 of bonds, respectively, for road construction. Address County Commissioners. (Lately mentioned.)

### SEWER CONSTRUCTION

Ark., Little Rock. — Joseph McCopplin of Little Rock has contract to construct 8000 feet of sewer in District No. 56; estimated cost \$5000. (Lately mentioned.)

Ky., Lexington. — General Council passed ordinance directing Mayor to advertise for bids for continuance of construction of



northern main sewer; \$25,000 bond issue available. Address The Mayor.

Mo., Little Blue.—Jackson County Court, Independence, Mo., awarded contract to Freeborn Construction Co., Kansas City, Mo., to construct sewerage system and septic tank at County Hospital. (See "Water-works.")

Okla., Apache.—City will vote November 9 on issuance of \$54,000 of bonds for construction of water-works, sewer and electric-light systems; city has engaged Southwestern Engineering Co., Oklahoma City, Okla., to furnish plans, specifications and estimate of cost of three systems; H. Peeper, Mayor.

Okla., Enid.—City Council decided to extend storm sewer being constructed in Kenwood Addition 1926 feet farther; contract now being executed calls for 2504 feet, making total length 4430 feet. Address The Mayor.

Okla., Kingfisher.—City awarded contract to T. W. Roberts, Chickasha, Okla., at \$10,635 to construct sanitary sewers; Edward Price, City Clerk.

Okla., Oklahoma City.—City will open bids November 22 for construction of sanitary main sewer, consisting of lines A, B, C and E, and for lateral sewer in Gault's Addition. Gault & Johnson's Addition, Park Place Addition, etc.; Bob Parman, City Clerk. (See "Machinery Wanted.")

Okla., Ramona.—City voted issuance of \$10,500 of bonds for sewer construction. Address The Mayor.

Okla., Tonkawa.—Whipple & Heyde of Tonkawa have contract at \$5700 to construct sanitary sewers in district No. 2.

S. C., Florence.—On account of legal technicality, city will again vote on bond issue for construction of sewer system; now proposes to increase former amount of \$65,000 to \$70,000; H. A. Jaudon, engineer, Savannah, Ga., has completed survey; H. K. Gilbert, Mayor.

Tenn., Chattanooga.—Board of Public Works, H. F. Van Dusen, chairman, has opened proposals for Chattanooga Creek system of intercepting sewers; cost about \$70,000; Noll Construction Co., 8 East 6th St., Chattanooga, lowest bidder; Isaac C. Mishler, 310 McCaule Ave., is lowest bidder for construction of small pipe sewers in Long and other streets; cost about \$5635.50; contracts awarded November 8. (Recently mentioned.)

Tex., Dallas.—Municipal Commission awarded contract at \$22,555 to F. H. Lancashire of Dallas to construct storm sewer on Elm street.

Tex., Dallas.—City awarded contract to F. H. Lancashire of Dallas at about \$19,000 to construct storm sewers on Washington and Haskell avenues; J. M. Preston, City Engineer.

Va., Winchester.—City voted issuance of bonds for sewer construction. Address The Mayor.

#### TELEPHONE SYSTEMS

Ark., Cash.—Farmers' Mutual Telephone Co. is planning to extend its line from Cash to Jonesboro and connect with the Lorado system at county line between Craighead and Greene counties.

Ga., Cary, R. F. D. from Cochran.—B. F. Abney reported interested in construction of 10-mile telephone line from Cary to Danville, Ga.

Miss., Long Beach.—Cumberland Telephone & Telegraph Co., main office, Nashville, Tenn., Leland Hume, general manager, has franchise to establish telephone system.

Tex., Roscoe.—Roscoe, Snyder & Pacific Railway Co. awarded contract to Balsh Bros., Hernaligh, Tex., for construction of 50 miles of telephone and telegraph lines between Roscoe and Snyder, Tex.

Tex., Mart.—Limestone Telephone Co. incorporated with \$4500 capital stock by Richard Blackwood, E. F. King and F. B. Moore.

Tex., San Antonio.—Farmers' Independent Telephone Co. will construct rural telephone line in parts of Bexar county.

W. Va., Wheeling.—Consolidated Telephone & Telegraph Co. incorporated with \$25,000 capital stock by S. M. Noyes, J. M. Ritz, A. B. Woodruff and others; office, 20 Broad St., New York.

#### TEXTILE MILLS

Ga., Douglasville.—Hosliery.—J. T. Duncan and associates will establish hosiery knitting mill reported last month; have building and power plant; will buy hosiery machinery. (See "Machinery Wanted.")

Miss., Greenville.—Hosliery.—E. P. Brown proposes to establish hosiery mill.

N. C., Concord.—Bleachery, etc.—Kerr Bleaching and Finishing Works (lately men-

tioned as increasing capital stock from \$25,000 to \$450,000) will not expend increase for improvements; amount named pays for replacing burned building and machinery previously reported; all completed.

N. C., High Point.—Hosliery.—John H. Tate, 324 North Main St., will probably complete arrangements early in 1910 for establishing hosiery-knitting mill previously mentioned.

N. C., Rutherfordton.—Cleghorn Mills Co. incorporated with capital stock of \$300,000 by J. C. Mills, R. P. Scruggs, Jr., and others.

N. C., Spring Hope.—G. W. Joyner, A. F. May, J. W. Hinton and associates planning to organize cotton mill company mentioned in September; contemplate developing water-power on Tar River.

N. C., Thomasville.—Amazon Cotton Mills Co., Charles G. Hill, treasurer, Winston-Salem, N. C., awarded contract at \$25,000 to Thompson Bros., Charlotte, N. C., for construction of mill building and reservoir for proposed plant. (Recently reported organizing, etc.)

S. C., Anderson.—Print Cloth.—Orr Cotton Mills awarded contract for improvements lately noted; will install 8 intermediates, 14 fly frames, double creel spinning, etc., so as to produce print cloth.

#### WATER-WORKS

Fla., Green Cove Springs.—City voted issuance of \$45,000 water, light, street and sidewalk bonds. Address The Mayor.

Fla., Quincy.—City awarded contracts for water-works construction recently noted. For power-plant building and reservoir, to Cooper & Selman, Quincy, at \$3391; electrical generator, at \$2835; to Fort Wayne Electric Works, Fort Wayne, Ind.; engine, at \$2965. Harrisburg Foundry & Machine Co., Harrisburg, Pa.; pump, at \$1565. Platt Iron Works, Dayton, Ohio; air compressor, at \$2750. Ingersoll-Rand Company, New York; stand-pipe, at \$2535. J. S. Schofield & Sons Company, Columbus, Ga.; fire hydrants, valves and boxes, to the Fairbanks Company, Chicago, Ill.; sewer pipe, at \$5134. H. Stevens Sons Company, Macon, Ga.; universal cast-iron pipe, at \$17,791. Central Foundry Co., New York; electric supplies, to Interstate Electric Co.; Geo. H. Palmer, City Engineer.

Miss., Ackerman.—City awarded contract to Walton & Wegner, Atlanta, Ga., to construct water-works and electric-light plant; reservoir to have capacity of 15,000 gallons; \$35,000 of bonds issued; X. A. Kramer, Magnolia, Miss., is engineer. (Lately mentioned.)

Miss., Gulfport.—City will open bids December 7 for laying 14,589 feet of eight-inch pipe, 27,700 feet of six-inch pipe and 2000 feet of four-inch pipe, making total of 44,289 feet of piping, estimated to cost \$34,000; at same time bids will also be opened for construction of pumping station, furnishing of fire pump, one constant-duty pump and fire-alarm system; these will make total cost about \$50,000; M. F. Sullivan, City Engineer, prepared plans. (Recently mentioned.)

Miss., Jackson.—City Council voted bond issue of \$100,000 for filtration plant and other improvements to water-works and \$25,000 for various public improvements. Address The Mayor.

Mo., Little Blue.—Jackson County Court, Independence, Mo., awarded contract to Freeborn Construction Co., Kansas City, Mo., at \$24,500 to construct water-works, septic tank and sewerage system at County Hospital at Little Blue; water-works will include two towers and tanks.

N. C., Jonesboro.—City will construct water-works. Address The Mayor.

N. C., Wilmington.—Water and Sewerage Commission, Charles Worth, chairman, awarded following contracts for furnishing and erecting practically all machinery and water tower needed in rehabilitation of water-works plant: Henry R. Worthington of New York, at \$16,000, for 4,000,000-gallon high-duty pumping engine with generative capacity of 135,000,000 foot-pounds; Babcock & Wilcox Company, Atlanta, Ga., at \$7632, for boilers, feed pump and heater; Whitted & White Company, Charlotte, N. C., at \$1592, for centrifugal pump and engine; Alexander & Garsed, Charlotte, N. C., at \$777.50, for electric-light engine and generator; R. D. Cole Manufacturing Co., Newnan, Ga., at \$7290, for water tower. Hazlehurst & Anderson, Atlanta, Ga., and Wilmington, are consulting engineers. (Recently mentioned.)

Okla., Apache.—City will vote November 9 on issuance of \$54,000 of bonds for construction of water-works, sewer and electric-light systems; city has engaged Southwestern Engineering Co., Oklahoma City, Okla., to furnish plans, specifications and estimate of cost of three systems; H. Peeper, Mayor.

Okla., Cushing.—City proposes to vote on issuance of \$25,000 water-works bonds. Address The Mayor.

Okla., Ramona.—City voted issuance of \$25,500 of bonds for water-works. Address The Mayor.

Okla., Sentinel.—City will expend \$15,000 for water-works construction; will install 40-horse-power engine and erect stand-pipe of 60,000 barrels capacity; has engaged engineer; will advertise bids for building material; J. E. Deaton to be addressed. (Bond issue recently noted.)

S. C., Anderson.—Anderson Water, Light & Power Co. will sink 60 new wells, increasing city's water supply.

S. C., Barnwell.—Contract for installation of proposed water-works system for Barnwell county jail and jailer's residence awarded to P. W. Price, Barnwell; plans and specifications by G. Lloyd Preacher, Augusta, Ga.

S. C., Beaufort.—City voted issuance of bonds to purchase or construct water-works. Address The Mayor.

S. C., Florence.—On account of legal technicalities, city will again vote on bond issue for water-works extension previously mentioned; H. A. Jaudon, engineer, Savannah, Ga.; it is proposed to increase amount to \$30,000; H. K. Gilbert, Mayor. (See "Sewerage Construction.")

Tenn., Obion.—City will vote on issuance of \$30,000 of bonds for water-works and electric-light plant. Address The Mayor.

Tex., Canadian.—Canadian Water, Light & Power Co. incorporated with \$40,000 capital stock by Avery Turner, J. E. Hurley, A. L. Conrad and H. E. Hoover.

Tex., Dallas.—City Commissioners have received report of civil engineers upon plans for White Rock dam and reservoir and instructed J. M. Preston, City Engineer, to proceed with preparation of specifications. These will call for dam 2100 feet long, base width 211 feet, top width 16 feet, valley height 39 feet, and constructed of earth with concrete covering from top for distance of 40 feet down up-stream face; spillway 450 feet wide and 11.5 feet deep; elevation of bottom of dam is 110 feet above city datum and top is 150 feet above datum; capacity is to be 5,785,000,000 gallons, and with proposed flash-board dam in spillway an additional \$50,000,000 gallons; water is estimated to cover 1429 acres at its flood; drainage area, 114 square miles; estimated cost of dam and spillway, \$370,000. Plans are nearing completion for pumping station, estimated to cost \$45,000, including water tower; bids for 15,000,000-gallon (minimum) pumping engine opened November 10; this is estimated to cost \$70,000, including connections with city mains; bids will be received until December 8 for furnishing 5000 tons of piping, estimated to cost \$140,000; John B. Hawley of Fort Worth and William Barclay Parsons of New York were consulting engineers. (Lately mentioned. See "Machinery, etc., Wanted.")

Tex., Fort Worth.—City voted issuance of \$275,000 bonds for extension of water-works; also contemplates issuance early in 1910 of \$100,000 additional bonds for general improvements. (Recently noted affirmative vote on \$65,000 fire-hall bonds, \$135,000 for street improvements and \$25,000 for light extension.) W. J. Gilvin, commissioner of finance and revenue.

Tex., Thorndale.—Thorndale Water Co. incorporated with \$4000 capital stock by E. L. Rasberry, John A. Lehman and W. A. Allcorn.

Tex., El Paso.—City will vote November 10, 11 and 12 on municipal ownership of water-works; International Water Co. submitted proposition to sell its plant to city for \$977,000. Address The Mayor. (Lately mentioned.)

Va., Strasburg.—City's water-works improvement (recently mentioned) consists of opening source of supply at higher point on mountain to develop greater flow; probably small cost; further improvements may be found necessary; information by C. W. Bushong.

W. Va., Bluefield.—City is considering issuance of \$150,000 of bonds for construction of water-works. Address The Mayor.

#### WOODWORKING PLANTS

Ark., Jonesboro.—Boxes.—B. F. McCrosky of Huntington (Tenn.) Wood Manufacturing Co. is arranging to establish box factory.

Ark., Jonesboro.—Handles.—Ohio Handle & Manufacturing Co. increased capital stock from \$40,000 to \$50,000.

Ark., Ashdown.—Staves.—Major Stave Co. incorporated with \$50,000 capital stock by W. N. Adams, C. C. Henderson, E. Nowlin and others.

Fla., Apalachicola.—John J. Ruge contemplates establishment of veneer plant; power supplied. (See "Machinery Wanted.")

Ky., Louisville.—Wagons.—Washington Wagon Co. organized with A. P. Speed, president; will establish plant for manufacturing wagons.

La., Colfax.—Staves.—Dalton Stave Co., Winnfield, La., will establish stave plant.

Mo., St. Louis.—Cabinet Work.—Loughman Cabinet Co. will erect plant; cost \$40,000.

N. C., Thomasville.—Veneer and Panels.—Thomasville Veneer & Panel Co. will establish plant; will erect timber building with corrugated roof; product to consume 5000 or more logs daily; no further machinery needed; J. Robt. Kiser, president; R. T. Lambeth, secretary-treasurer.

N. C., Valle Crucis.—Bishop Horner is interested in establishment of box factory at industrial school.

Okla., Westville.—Wagon Stock.—Westville Lumber Mill & Finishing Co., recently reported incorporated (under "Lumber-manufacturing Plants"), will establish plant to manufacture wagon stock finished; P. J. Dore, president; H. G. Noel, general manager; will erect buildings 60x80, 40x80 and 40x60 feet in size; mill construction; cost \$2000; cost of machinery (mainly purchased), \$7000.

S. C., Conway.—Handles, etc.—Fred S. Averill contemplates enlargement of plant; manufactures axe, sledge and other handles, balusters, etc.

Tenn., Bristol.—Molding.—A. S. Roberts, Knoxville, Tenn., proposes establishment of wood molding and carving plant.

Tenn., Memphis.—Carriages, etc.—Broens Carriage & Wagon Co., 365 Court Ave., will install woodworking machinery in building recently noted; two-story brick and stone structure; cost \$10,000; contractor, B. B. Brumley, Memphis. (See "Machinery Wanted.")

Tenn., Memphis.—Clothespins.—Perfection Clothespin Co. incorporated with \$10,000 capital stock by A. W. Bunch, R. J. McGraver and Eugene Anderson.

Tenn., Monterey.—Spokes, Handles, etc.—Nashville (Tenn.) Spoke & Handle Co. purchased site and will establish plant.

Va., Graham.—Furniture.—J. W. Cline and Weaver Cline, both of Hallsville, Va., contemplate. It is reported, establishment of furniture factory.

Va., Norton.—Furniture, Caskets, etc.—Norton Furniture Factory, E. L. Dameron, president (recently noted to establish plant for manufacturing furniture), will erect two-story frame building; ordinary construction; cost \$3000; has purchased and will install machinery costing \$4000; will manufacture chairs, dining, kitchen and center tables, coffins and caskets.

Va., Petersburg.—Furniture.—Allen Furniture Co. incorporated with \$10,000 capital stock; E. A. Bain, president; T. L. Blackenship, vice-president; E. L. Allen, secretary-treasurer.

#### BURNED

Ala., Birmingham.—T. L. Anglin's residence; loss \$5000.

Ala., Crossville.—Farmers' Union cotton gin; saw, grist and shingle mill; loss, several thousand dollars.

Ala., North Birmingham.—Twenty-first Avenue Methodist Church; loss \$8000. Address The Pastor, Twenty-first Avenue Methodist Congregation.

Ark., Sutton.—A. A. Galloway's cotton gin.

Ark., Gentry.—Gentry Fruit Growers' Association's evaporating plant.

Ark., Marianna.—L. M. Browers' cotton gin at Raggle City; loss \$4300.

Ark., Prescott.—Tom Barham's cotton gin; loss \$3000.

D. C., Washington.—Rudolph & West Company's hardware store at 1332 New York Ave.; loss \$50,000.

D. C., Washington.—Peter Firsinger's residence and shed at 1 N street N. W.; loss \$25,000.

Fla., Pensacola.—D. Hale Wilson's residence.

Ga., Blakely.—D. D. Strong's residence; loss \$6000.

Ga., Milledgeville.—Store building of George B. Owens, Perry Peeples and C. B. Owens.

Ga., McDonough.—Hinton Bros.' mill and cotton gin.

Ga., Pelham.—Stable of J. J. Battle, Moultrie, Ga.; C. V. James' stable; total loss, \$29,000.

Ga., Statenville.—Dorris & Co.'s store; loss several thousand dollars.

Ga., Valdosta.—J. E. Edmondson's residence.

Ky., Mayfield.—R. U. Kevill & Sons' elevator and storage-house; loss \$15,000.

Ky., Maysville.—H. H. Collins Lumber Co.'s office building; loss \$4000.

Ky., Nicholasville.—Thomas Stafford's tobacco barn; loss \$7000.

La., Kentwood.—T. Bennett's syrup mill.

La., New Orleans.—Louisiana Bottling Works; loss \$4000.

La., New Roads.—A. A. Doro's sugar-house; loss \$100,000.

La., Plaquemine.—Plaquemine Electric Light Co.'s power-house, loss \$12,500; municipal pump-house and water-works plant, loss \$2500; A. M. E. Congregation's church building and parsonage, loss \$2500; Charles E. Schwing's office building, occupied partly by Ibberville South Publishing Co., loss on building \$3500, and printing plant \$3000.

Md., Baltimore.—Baltimore Oakum Works' plant at Canton Ave. and Luzerne St. damaged; loss \$7000.

Md., Chestertown.—William Whiteley's stables; Charles S. Smith's stables; loss about \$10,000.

Md., Hagerstown.—Barn owned by J. W. Morris, 614 F St. N. W., Washington, D. C.

Miss., Clarksdale.—J. O. Baugh's cotton gin, saw and grist mills; loss \$15,000.

Miss., Dyer.—Kelly Bros.' cotton gin.

Mo., Nevada.—W. F. Norman Cornice Manufacturing Co.'s plant; loss \$150,000.

Mo., Westport, Station Kansas City.—White Star Laundry Co.'s plant; loss \$8000.

N. C., Cherryville.—J. M. Beam's residence and barn, loss \$5000; J. F. Weathers' residence, Henry Houser's residence, both owned by D. E. Beam, loss \$5000; J. H. Rudisill's residence, loss \$3500.

N. C., Durham.—Beck Grocery Co.'s building; loss \$20,000.

N. C., Durham.—A. C. Beck's store, loss \$4000; Model Furniture Co.'s store, loss \$5000.

N. C., Elizabeth City.—Elizabeth City & Norfolk Telephone & Telegraph Co.'s switchboard; loss \$3000.

N. C., Morganton.—A. C. Lyman's barn; loss \$4000.

N. C., Newbern.—Norfolk & Southern Railway's carpenter shop, car barn, boiler-room, machine shop and roundhouse; loss \$250,000; F. L. Nicholson, Norfolk, Va., is chief engineer.

N. C., Raleigh.—Blalock & King's sawmill; loss \$1500.

Okl., Coalgate.—Newport Hotel.

Okl., Crowder.—Oklahoma Ginning Co.'s ginhouse and seed-cotton station; loss \$12,000.

Okl., Okemah.—Hudson Gin Co.'s plant; total loss, \$20,000.

S. C., Ballentine.—John Bouknight's cotton gin and flour mill; loss \$3000.

S. C., Bennettsville.—John L. McLaurin's water mill and cotton gin.

S. C., Greenwood.—Church of the Resurrection; loss \$2000; Rev. O. T. Porcher, pastor.

S. C., Hartsville.—A. M. McNair's cotton gin.

Tenn., Caryville.—W. G. Schultz's store and hotel building; loss on building, \$2500.

Tenn., Castalian Springs.—Fillmore Chennault's residence; loss \$3000.

Tenn., Johnson City.—J. Fred Johnson's residence; loss \$11,000.

Tex., Beaumont.—Texas Company's nine oil tanks, containing about 325,000 barrels of oil; total loss about \$500,000.

Tex., Cushing.—W. F. Daniel's sawmill.

Tex., Ennis.—Knights of Pythias' building; Ennis Daily News Co.'s plant; loss \$30,000.

Tex., Honey Grove.—S. W. Gose's stable; loss \$3000.

Tex., Kirbyville.—N. W. Pratt & Co.'s warehouse.

Tex., Petty.—J. F. Hembree, Sr.'s, residence; loss \$3000.

Tex., Port Arthur.—Gulf Refining Co.'s 55,000-barrel tank of naphtha.

Tex., Rugby, R. F. D. from Deport.—John Wright's cotton gin; loss \$7000.

Va., Blackrock Springs.—Blackrock Springs Hotel Co.'s hotel, owned by Dr. W. F. Stout, Mount Solon, Va.

Va., Houston.—Postoffice building; Clay & Lacy's meat market; E. S. Lacy's hardware store; Lacy Clay Products Co.'s building; loss \$40,000.

Va., Fincaisle.—Grove Hill residence of George W. Breckinridge.

Va., Luray.—I. Riddleberger's flour mill.

Va., Norfolk.—Imperial Company's main

fertilizer plant building and wharf; loss \$50,000.

Va., Parksley.—Methodist Protestant Church; loss \$6000. Address The Pastor, Methodist Protestant Congregation.

Va., Roanoke.—M. W. London's stable; loss \$1000.

W. Va., Charleston.—Shannondale Springs Hotel, owned by H. C. Getzendanner.

## WRECKED BY EXPLOSION

Tenn., Allgood.—Keith & Thomas' sawmill; loss \$2500.

## BUILDING NOTES

### APARTMENT-HOUSES

Fla., Jacksonville.—Z. C. Herlong will erect two-story frame apartment-house to cost \$10,000.

Ga., Atlanta.—Dr. William Owens has plans by C. E. Frazier, English-American Bldg., Atlanta, for two apartment-houses; six apartments each; three stories; brick; stone trimmings; tile roof; cost \$50,000; construction begun. (Recently mentioned.)

Md., Baltimore.—Algonquin Building Co. organized with \$100,000 capital stock by Webb & White, agents Forest Park Co., Forest Park, to construct apartment-house at Chase and St. Paul streets; fireproof; 10 stories and basement; two elevators; steam heat; cost of building and site, \$250,000; plans by Edward H. Glidden, Glenn Bldg., 16 St. Paul St., Baltimore.

Md., Baltimore.—Frank Brown, Charles and Read Sts., will erect apartment-house on southwest corner Charles and Read streets; 10 stories; 56x150 feet; fireproof; facade of stone, brick and terra-cotta; modern Renaissance style of architecture; 68 suites, to consist of from one room and bath to seven rooms and bath; private cold-storage plant; each suite will have individual cold-storage refrigerator, refrigeration to be furnished by central plant in building; public cafe, 44x50 feet; two elevators for passengers; one elevator exclusively for handling furniture; cost \$250,000; plans by Chas. Montgomery Anderson, 324 North Charles St., Baltimore, and will soon be distributed among builders for estimates.

Md., Govans.—Joseph A. Tormey, 55 Central Savings Bank Bldg., is having plans prepared by Francis E. Tormey, 404 Wilson Bldg., Baltimore, for apartment-house at Govans; 45x82 feet; four stories; tapestry brick; marble trimmings; eight apartments; hot-water heat; gas and electric fixtures; filtered water; cost \$20,000.

Md., Hagerstown.—Francis H. Miller has plans by A. A. Richter, Lebanon, Pa., for apartment-house; seven stories; fireproof; cost \$40,000 to \$50,000.

Mo., St. Louis.—Jacob Rubin purchased site on which to erect two single apartment-houses.

Tenn., Nashville.—John Williams will erect apartment-house; three stories; brick; cost \$40,000; architect, C. Dietz; contractor, John H. Nolen, both of Nashville.

### BANK AND OFFICE BUILDINGS

Ala., Cullman.—G. S. Leeth will expend \$15,000 on erection of bank and store building, contract recently noted awarded to Wm. A. Schlosser, Cullman; ordinary construction; sawed stone and brick; size 65x110 feet; electric lighting; for national bank and store; plans by contractor.

Ala., Decatur.—Tennessee Valley Bank, S. S. Broadus, president, will erect bank building; brick; two stories; cost \$6000.

Ark., Dardanelle.—Farmers' Bank & Trust Co., W. S. McCarroll, secretary, will award contract for erection of bank building; plans by Theo. M. Sanders, Southern Trust Bldg., Little Rock, Ark.

D. C., Washington.—Wagstaff & White contemplate erecting arcade building; seven stories; stores on first two floors and offices above.

Ga., Valdosta.—B. F. Strickland is considering erection of office and store building.

Md., Baltimore.—Atlantic Fruit Co., Joseph di Giorgio, president, Calvert Bldg.; Rosario di Giorgio, manager, 18 East Pratt St., will erect one-story office building on Pier 2, Pratt street; plans by Edward Moller; contract awarded to John E. Osborn, 1210 Edmondson Ave., both of Baltimore.

Miss., Tylertown.—L. H. Ginn, G. H. Collins and others have organized banking company and will erect bank building.

Mo., Kansas City.—Zahner Manufacturing Co. will erect 10-story building.

Mo., St. Louis.—St. Louis Provident Asso-

ciation will erect building; three stories; brick; 50x150 feet; 50 rooms; cost \$50,000; plans by J. Hal Lynch of St. Louis.

Mo., St. Louis.—Bank Realty Co. awarded contract to J. Chas. Mueller, 3500 Hebert St., St. Louis, for erection of building recently mentioned; three-story brick and stone structure; for bank, store and offices; size 60x90 feet; steam heat; cost \$35,000; plans by Edw. F. Nolte, Fullerton Bldg., St. Louis.

Tenn., Elbridge.—Bank of Elbridge, W. T. Call, president, will erect bank building.

Tenn., Erwin.—Bank of Erwin will erect bank building.

Tenn., Knoxville.—Knoxville Water Commission will petition City Council for permission to make repairs and erect vault to present office building of city plant; cost not over \$5000; S. D. Newton, City Engineer.

Tex., Taylor.—C. H. Booth and C. Mendel, vice-presidents of Taylor National Bank, will erect two-story brick building.

Tex., Taylor.—D. F. Smith awarded contract to Carl Flet, Bartlett, Tex., to erect office building; two stories; pressed-brick front trimmed in sandstone; plans by Henry Struve of Taylor; Venale & Ahlgren of Taylor are contractors for marble furnishings.

W. Va., Elm Grove.—First National Bank will erect two-story brick bank building.

## CHURCHES

Ala., Florence.—First Baptist Church awarded contract to H. B. Austin of Florence to erect edifice; pressed brick; stone trimmings; steel ceiling; metal shingle roof; tile loggia; art glass; hot-air heat; contract price, \$10,000; pressed brick, art glass and hardware to be furnished by building committee, W. M. Richardson, chairman; Runge, Dickey & Galliher, First National Bank Bldg., Nashville, Tenn., prepared plans, and will supervise construction. (Lately mentioned.)

Ala., Florence.—Presbyterian Church awarded contract to John W. Gray of Florence to erect edifice.

Ala., Gadsden.—Christian congregation awarded contract to M. K. Ross of Gadsden to erect edifice; 32x90 feet.

Ark., Hot Springs.—First Baptist Church has begun erection of proposed edifice; white-enameled brick; cost \$60,000. Address The Pastor, First Baptist Congregation.

Fla., Jacksonville.—First Christian Church contemplates erection of new edifice to replace temporary frame building previously noted; plans not yet ready; L. E. McCombs, 1230 Albion St., may be addressed.

Fla., St. Petersburg.—Bonniwell & Son of St. Petersburg are preparing plans for edifice; 61x61 feet; seating capacity 400; brick or stone.

Ky., Lexington.—First Baptist Church, Rev. J. W. Porter, pastor, will erect edifice.

La., New Orleans.—St. Henry's Church, Rev. Father Richen, pastor, will erect edifice; probably of brick and cost \$20,000 to \$25,000.

N. C., Shelby.—First Baptist Church will erect edifice; probable cost \$30,000; construction not before spring; James L. Webb and others, building committee.

N. C., Spring Hope.—Methodist Church, Rev. B. E. Stanfield, secretary building committee, had plans prepared by B. D. and Max C. Price, Atlantic Highlands, N. J., for edifice recently mentioned; structure 52x83 feet, with Sunday-school rooms connected by folding doors; brick; slate or tin roofing; cost \$8000; date of opening bids not decided. (See "Machinery Wanted.")

N. C., Weldon.—Methodist Episcopal Church, Prof. R. H. Latham, chairman of committee, will receive bids for erection of brick edifice recently mentioned; ordinary construction; 8x100 feet; hot-air heat; electric lighting; cost, complete, \$25,000; plans prepared by Wheeler & Stern, Charlotte, N. C.

Okl., McAlester.—First Baptist Church adopted plans for edifice; 80x110 feet; auditorium with seating capacity of 1500; cost \$30,000. Address The Pastor, First Baptist Congregation.

S. C., Gaffney.—Cherokee Avenue Baptist Church has not decided on date of opening bids for erection of edifice recently mentioned; brick structure; about 90x115 feet; hot-air heat; electric lighting; organ to be installed; cost \$25,000; plans by Wheeler & Stern, Charlotte, N. C.; E. R. Cash, chairman of committee.

S. C., Saluda.—Baptist congregation is considering erection of edifice to cost \$10,000. Address The Pastor, Baptist Church.

Tenn., Lewisburg.—Presbyterian congregation will erect edifice. Address The Pastor, Presbyterian Church, U. S. A.

Tex., Abilene.—First Baptist Church awarded contract to E. S. Boze, Waxahachie, Tex., to erect edifice; brick and concrete; cost \$50,000; plans by Walter, Shaw & Field, Fort Worth, Tex. (Lately mentioned.)

Tex., Beaumont.—Presbyterian Church will expend \$42,000 in erection of edifice, contract recently noted awarded to M. A. McKnight & Co., Beaumont; brick building; 70x100 feet; ordinary construction; steam heat; electric and gas lighting; cost \$42,000; plans by W. A. Cann, 705 Olive St., St. Louis, Mo.; Maurer & Co., supervisors; building committee will let contracts for heat and lighting.

Tex., Laredo.—Home Mission Board, Southern Baptist Convention, will build \$15,000 church and school building; details not decided; R. C. Blalock, Pearsall, Tex., may be addressed.

Tex., Quanah.—Southern Presbyterian Church awarded contract to Quanah Planing Mill Co., Quanah, for erection of proposed edifice; stucco construction. Address Fred Chase.

Va., Parksley.—Methodist Protestant Church will rebuild edifice recently reported burned; brick or stone structure; probably hot-water heat; electric lighting; cost \$10,000; architect not employed; want plans; H. T. Mason, trustee, may be addressed.

## COURTHOUSES

Ga., Atlanta.—Fulton county is considering erection of courthouse; H. E. Palmer and others, committee.

Va., Amelia.—Amelia county has filed plans and specifications in office of Builders' Exchange, Norfolk, Va., for proposed courthouse. Following are bidders: J. C. Curtis of Denbigh, Haynes Bros. of Chatham, Geo. Leigh & Bro. of Louisa, W. D. Barbour of South Boston, Va.

## DWELLINGS

Fla., Sanford.—C. R. Walker awarded contract to E. B. Randle, Sanford, for erection of residence.

Fla., St. Augustine.—Walter Elliott will erect bungalow; one and a half stories; 42x50 feet; seven rooms; exterior shingled; interior finished dead stained yellow pine; fireplaces.

Ga., Cochran.—J. E. Cook reported to erect residence.

Ga., Lagrange.—C. E. Market awarded contract to Cleveland & Gladney, Lagrange, for erection of \$3500 residence.

Ga., Lagrange.—P. F. Longley awarded contract to Cleveland & Gladney, Lagrange, for erection of \$5500 residence.

Ga., Savannah.—Henry E. Dreeson, 221 Duffy St. west, will erect two double houses at cost of \$10,000; concrete block; electric and gas lighting; construction by owner; building recently noted; wants plans for double house on corner lot.

Ga., Savannah.—E. C. Alexander will erect six cement dwellings.

Ga., Savannah.—Estate of C. E. Anderson will erect six tenement-houses; concrete block; shingle roofs; two stories; entire frontage of the six 168 feet; depth 141 feet; cost \$25,000.

La., New Orleans.—Klirn Bros. purchased 13 lots and will erect cottages.

Md., Baltimore.—John Johns, 2413 O'Donnell St., will erect 10 dwellings on Presbury street; two stories; cost \$22,000.

Md., Baltimore.—Raleigh Realty Co. awarded contract to W. T. Childs, 14-16 West 20th St., Baltimore, for erection of cottage at Garrison and Dorchester avenues; three stories; 50x50 feet; cost \$17,800; plans by John R. Forsythe, 232 St. Paul St., Baltimore.

Md., Baltimore.—Kenmore Realty Co. has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for 11 dwellings on Grayson avenue; two stories; 14x44 feet; cost \$13,200.

Md., Baltimore.—T. Owen Dorsey, 823 North Carey St., has plans by F. E. Beall, 213 St. Paul St., Baltimore, for dwelling on Bateman avenue; two and a half stories; frame; 26x30 feet; cost \$3000; will, it is reported, award contract for construction to Seward Colburn, Baltimore.

Md., Baltimore.—Charles F. Stein, 231 Courtland St., awarded contract to Engineering-Contracting Co., 502 St. Paul St., Baltimore, for erection of residence on See and Park Drive; three stories; brick; 40x40 feet; slag roof; steam heat; cost \$5000; plans by D. L. Kneeder, Baltimore.

Md., Baltimore.—Howard Realty Co. will erect ten dwellings after plans by Stanislaus Russell, 3300 Clifton Ave., Baltimore; six 14x56-foot and four 22x34-foot buildings; all two stories; ordinary construction; steam heat; electric and gas lighting; cost \$2100



each; erection by owner. (Some of these dwellings previously mentioned.)

Md., Baltimore.—John J. Carter has plans by Stanislaus Russell, 3900 Clifton Ave., Baltimore, for four dwellings at Walbrook; two stories; three 24x36 feet; one 24x61 feet; cost \$10,000.

Md., Baltimore.—Mrs. A. E. Clarke had plans prepared by Stanislaus Russell, Clifton Ave. and 7th St., Baltimore, for three-story colonial twin cottage at Tuxedo Park; brick; slate roof; hot-water heat; electric and gas lighting; cost \$10,000; contract not awarded.

Md., Baltimore.—Mrs. M. Fear awarded contract to Harwell W. Thomas, 2014 Slingluff Ave., Baltimore, for erection of six dwellings on Highland avenue; two stories; brick; 14x46 feet; steam heat; cost \$15,000; plans by F. E. Beall, 213 St. Paul St., Baltimore.

Md., Baltimore.—W. L. Russell awarded contract to Seybold & Eigenbrode, Arlington, Baltimore, for erection of two-and-one-half-story frame cottage; hot-water heat; gas and electric lighting; cost \$6,000; plans by Stanislaus Russell, 3900 Clifton Ave., Baltimore.

Md., Baltimore.—John J. Cralin, 215 St. Paul St., has plans by Stanislaus Russell, 3900 Clifton Ave., Baltimore, for four residences on Chelsea Terrace; two stories; brick; porch fronts; hot-water heat; slate roofs; 24x36 feet; cost \$12,000.

Md., Baltimore.—Edward A. Lyons, American Bldg., awarded contract to George Lisemeyer, 108 West Saratoga St., Baltimore, for erection of residence on Roslyn avenue; two and a half stories; steam heat; plans by F. E. Beall, 213 St. Paul St., Baltimore.

Md., Baltimore.—Charles Fears, Law Bldg., will erect 20 dwellings on Bentalou street; two stories; brick.

Md., Baltimore.—Arthur W. Burdette, 1950 West Fayette St., has plans by Jacob F. Gerwig, 210 East Lexington St., Baltimore, for 10 dwellings on Slingluff avenue; two stories; brick; 14x41 feet; tin roofs; furnace heat; cost \$12,000.

Md., Glyndon.—Morton P. Tootle has plans by Bayard Turnbull, 328 North Charles St., Baltimore, Md., for residence; frame house, shingled, size 51x31 feet, exclusive of porches and kitchen; hot-water heat; electric lighting. Contractors estimating include Arthur F. West, 217 South Gilmor St.; Willard E. Harn, 2700 Huntingdon Ave.; Gladfelter & Chambers, 2072 Woodberry Ave.; G. Walter Tovell, all of Baltimore, Md.; bids received until November 15.

Md., Roland Park, Station L, Baltimore.—William H. Wells awarded contract to Roland Park Company, 410 Roland Ave., Roland Park, for erection of residence; two and a half stories; plans by Edwin L. Palmer, 112 Elmhurst Rd., Roland Park.

Miss., Hattiesburg.—J. E. Davis will erect residence.

Mo., Kansas City.—William Allen Smith has plans by A. Van Brunt & Co., Kansas City, for proposed residence; red brick; English style; cost \$30,000.

Mo., Kansas City.—J. L. Loose has plans by Root & Siemens, Scarritt Bldg., Kansas City, for residence; Greek architecture; exterior diamond-made vitrified brick, with wire-cut face; cost \$50,000.

Mo., St. Louis.—Philip T. May will erect 31 dwellings; six rooms; cost \$77,500.

Mo., St. Louis.—Thomas Degenhardt will erect five dwellings; brick; cost \$10,000.

N. C., Chadbourn.—R. E. L. Brown is having plans prepared by J. F. Leitner, Wilmington, N. C., for colonial-style residence to cost \$15,000.

N. C., Flat Rock.—Frank Haynes awarded contract to Contractor Balne, Hendersonville, for remodeling residence; cost of improvements, \$10,000.

Tenn., Chattanooga.—Arthur L. Pattison, now of Marshall, Mich., will erect residence on Mission Ridge (suburb).

Tenn., Knoxville.—George Gaut has plans by Charles A. Hayes, Knoxville, for residence; two stories; bungalow type; nine rooms.

Tex., Ballinger.—H. Glesecke will erect dwelling; cost \$10,000.

Tex., Eagle Lake.—J. S. Roemer will erect dwelling; one story; cost \$4,000.

Tex., Houston.—J. G. & S. A. Buckley awarded contract to J. H. Bailey, Houston, for erection of residence; two stories; frame; eight rooms; cost \$5,000.

Tex., Houston.—Emile Silbernagel awarded contract to George W. Dodson, Houston, for erection of residence; eight rooms; two stories; garage in rear; cost \$6,000; plans by Olle J. Lorehn, Houston.

Tex., Mercedes.—R. J. Smith will erect three dwellings; cost \$10,000.

Va., Norfolk.—Mrs. Mamie F. Reid awarded contract to Louis Mangialetto, Norfolk, for erection of residence; cost \$2,500.

Va., Norfolk.—Louis Mangialetto will erect eight-room residence.

Va., Norfolk.—S. W. Truitt awarded contract to M. B. Jordan, Norfolk, for erection of seven double-frame dwellings; cost \$7,000.

W. Va., Wheeling.—Lawrence Taylor will erect residence at Springdale.

## GOVERNMENT AND STATE BUILDINGS

Ark., Little Rock.—Hospital.—State Tuberculosis Sanatorium Board, Dr. C. P. Merriweather, secretary, will have plans prepared by Klingsmith & Klingsmith, Fort Smith, Ark., for sanatorium.

Fla., Tampa.—Laboratory.—Shaw & Jay of Tampa have prepared plans for bacteriological laboratory building for State Board of Health and will receive bids for erection until November 22; structure is to be two stories with attic; waterproof; pressed brick; granite caps for sills and windows; tile roof; second floor will have inoculating, refrigerator, incubator and incineration rooms. Plans and specifications at office of architects in American National Bank Bldg.; certified check for 3 per cent. of bid.

La., New Orleans.—Hospital.—Charity Hospital contemplates erection of four-story building, to cost \$17,000; equipped with \$5,000 worth of laundry machinery; to be used as dormitory and laundry; E. S. Lewis, vice-president board of administrators; L. P. Delahoussaye, secretary.

Miss., Columbus.—Postoffice.—Newport News Construction & Engineering Co., Newport News, Va., has contract at \$51,558 to erect United States postoffice. (Lately noted.)

N. C., Fayetteville.—Postoffice.—Holladay & Crouse, Box 213, Greensboro, N. C., have contract at \$53,635 to erect United States postoffice at Fayetteville; fireproof building; 55x90 feet; brick and stone; electric lighting; plans by James Knox Taylor, Supervising Architect, Treasury Department, Washington, D. C. (See "Machinery Wanted.")

Okla., Oklahoma City.—Postoffice.—Treasury Department, Office of Supervising Architect, James Knox Taylor, Washington, D. C. Proposals will be received until December 9 for construction, complete (except elevator, heating, gaspiping and electric wiring and conduits) of U. S. postoffice at Oklahoma City, in accordance with drawings and specifications, copies of which may be had at above office or of postmaster at Oklahoma City, at discretion of supervising architect. (Name of architect lately incorrectly stated.)

## HOTELS

Ala., Gadsden.—West Construction Co. of Gadsden has contract to remodel Printup Hotel; will tile lobby floor; replace office counter with marble one; install elevator and steam heat; A. P. Reich is manager. (Lately mentioned.)

Fla., Daytona.—E. L. Potter awarded contract to W. T. Hadlow Company, Jacksonville, Fla., to erect Clarendon Hotel; reinforced concrete; 250 rooms; concrete floors; site covers 14 acres, with ocean frontage of 950 feet and depth of 500 feet; building to have steam heat; electric lighting; electric elevators; estimated completed cost, \$400,000; plans by Price & McLanahan, 1624 Walnut St., Philadelphia, Pa.

Ga., Atlanta.—W. C. Hundley leased Aragon Hotel and will remodel at cost of \$25,000 to \$35,000.

Ky., Louisville.—Seelbach Hotel Co. will change roof garden into sample-rooms, expending \$10,000; space will be covered and rooms made by dividing division walls; L. A. Lapp, New York, is superintending changes.

Md., Baltimore.—Isaac E. Emerson, 2500 Eutaw Pl., purchased site at Baltimore and Calvert streets and is having plans prepared by Joseph E. Sperry, 409 Calvert Bldg., Baltimore, for hotel; 15 stories; bath for every room; roof garden; cost \$1,000,000.

Miss., Natchez.—L. E. Davis, secretary Chamber of Commerce, is considering organization of company to erect tourist hotel.

Mo., Kansas City.—F. B. and Clem B. Altman will erect hotel; steel construction; four stories; 225 rooms; cost \$250,000.

N. C., Hildenite.—Davis Bros. will make addition to summer hotel near Hildenite; will increase dining and sleeping room capacity; cost \$2,000; plans and construction by owners. (Recently noted under Statesville, N. C.)

Tex., Ballinger.—G. O. Odom, owner Central Hotel, awarded contract for additional story to present structure.

W. Va., Huntington.—Wild Hotel Co. (recently reported incorporated with \$10,000 capital stock by H. R. Wild and others) will not build; has leased Florentine Hotel.

## MISCELLANEOUS STRUCTURES

Ala., Birmingham.—Business.—Wimberly & Thomas will erect business building; four stories and basement.

Ala., Mobile.—Hospital.—Mobile Non-Sectarian Infirmary Association, Mrs. C. J. Torrey, president, contemplates erection of hospital; cost of site and building, \$80,000.

Ark., Little Rock.—Store.—Lewis and Orpha E. Parker will erect store building; two stories; concrete.

Ark., Little Rock.—Store.—Frank J. Glinocchio will erect store building; two stories; brick.

Ga., Atlanta.—Clubhouses.—Boys' Club is preparing to erect clubhouse; cost \$50,000; E. Rivers, chairman of building committee.

Ga., Albany.—Association.—Young Men's Christian Association contemplates erection of \$30,000 association building.

Ga., Albany.—Hospital.—Albany Hospital Association contemplates rebuilding house for hospital purposes.

Ga., Atlanta.—E. W. Alfriend awarded contract to Crowell, Dobbins & Putnam, Atlanta, for remodeling and extension to business building previously mentioned.

Ga., Atlanta.—Lodge.—Elks' Lodge contemplates either erection of building or purchasing and remodeling building now erected; cost \$200,000.

Ga., Savannah.—Business.—F. C. Anderson contemplates erection of six cement business buildings.

Ga., Rome.—Store.—Paul Lumpkin will erect store building in Wax.

Ga., Waycross.—Association.—Young Men's Christian Association is having plans prepared by J. F. Leitner, Wilmington, N. C., for \$25,000 association building.

La., Hammond.—Lodge, etc.—Knights of Pythias and Odd Fellows will award contract in about two weeks for erection of building recently mentioned; two stories; brick and frame; 50x100 feet; ordinary construction; direct steam heat; electric lighting; cost \$15,000; for stores, lodge and club rooms; plans by W. L. Stevens Company, 1109 Hennen Bldg., New Orleans, La.

La., Shreveport.—Business.—Wiener Loeb Grocery Co. will erect business building; two stories; cost \$40,000.

Md., Baltimore.—Business.—Henry Brehm, Calvert Bldg., purchased building at 417 East Baltimore street and will remodel and use in connection with cafe and bowling alley at 4 South Gay street.

Miss., Bogue Chitto.—Store.—B. E. Brister Mercantile Co. awarded contract to E. J. Kitts, Brookhaven, Miss., for erection of store building; brick; 60x100 feet.

Mo., Huntsville.—Jail.—Randolph county voted \$25,000 of bonds to erect jail. Address County Commissioners.

Mo., Kansas City.—Business.—S. S. Swearingen will erect business building; three stories; 25x115 feet; cost \$15,000.

Mo., St. Louis.—Fish and Oyster House.—Meletto Fish & Oyster Co., 415 Washington St., will open bids November 15 for erection of building recently mentioned; plans by H. A. Wagner, Victoria Bldg., St. Louis; brick, steel and concrete structure; fireproof; 37½x100½ feet; hot-water heat; electric lighting; electric freight elevator; refrigerating machinery; cost \$15,000.

N. C., Rocky Mount.—Association.—Young Men's Christian Association is having plans prepared by J. F. Leitner, Wilmington, N. C., for proposed association building; cost \$25,000.

N. C., Sanford.—Mercantile.—W. A. Monroe, J. R. Jones and Lynn Melver will erect mercantile building; 72x90 feet.

N. C., Winston-Salem.—Business.—Ernest, J. L. W. L. and Anthony Angelo will erect business building; three stories; pressed-brick front; cost \$6,000.

Okla., Enid.—Hospital.—Oklahoma Hospital & Sanitarium Co. incorporated with \$50,000 capital stock by Frank P. Davis, Enid; E. T. Keeler, Hunter, Okla., and D. W. Miller, Blackwell, Okla.; will erect 32-room general hospital in Enid; will also build sanitarium for tuberculous patients on Great Salt Plains, 20 miles west of Enid; sanitarium to include two-story-and-basement building, 20-22 room cottages, 5-room residence for superintendent, 20-room hospital and 40x65-foot recreation building; ordinary cement and brick construction; heating not decided;

acetylene gas lighting; buildings to cost \$40,000; architect not selected; Frank P. Davis, secretary. (See "Machinery Wanted.")

Okla., Enid.—Hospital.—Company organized by Frank D. Davis, Enid; G. W. Miller, Blackwell, Okla., and others, to erect \$50,000 tuberculosis hospital.

Okla., Lawton.—Store.—J. T. Harris awarded contract to A. L. Lund, Lawton, for repairs to store building recently noted burned; walls not destroyed; electric lighting; to be occupied by Allen's department store.

Okla., Oklahoma City.—Mercantile.—Miller Bros. will erect store building; seven stories; 75x140 feet.

Tenn., Chattanooga.—Lodge.—Keystone Pythian Company, Alexander Scott, Sr., president, care of Davidson Clothing Co., 811 Market St., is having plans prepared by Charles E. Bearden, Chamberlain Bldg., Chattanooga, for remodeling building recently mentioned; three-story-and-basement brick structure; composition roof; stone columns; hot-water heat; electric and gas lighting; cost \$20,000; possession of building to be obtained January 1.

Tenn., Chattanooga.—Mercantile.—J. M. Allen, 114 Whiteside St., is receiving proposals for erection of brick mercantile building at Whiteside and 27th streets; two stories; composition roof; cost \$4,000.

Tenn., Columbia.—Storehouses.—W. M. Buchanan, 42 South Main St., has plans prepared by and awarded contract to J. B. Micks, Columbia, for erection of building recently mentioned; for wheat, corn, hay, etc.; 1½ stories; 80x70 feet; cost \$3,000.

Tenn., Knoxville.—Y. M. C. A.—Colored Young Men's Christian Association planning to erect \$25,000 association building.

Tenn., Rogersville.—Jail, etc.—County jail and jailer's residence (recently mentioned) will be erected at cost of \$15,000; size 48x52 feet; electric lighting; plans by C. G. Mitchell, Johnson City, Tenn.; contractors, Albert Lyons and J. S. Simpson, both of Rogersville. (See "Machinery Wanted.")

Tenn., St. Elmo.—Mercantile.—A. Mitchell, 1113 Whiteside St., Chattanooga, will erect mercantile building on Main street, St. Elmo; two stories; brick; composition roof; store on first floor; dwelling above; piped for gas; cost \$4,000.

Tex., Ballinger.—Business.—H. Glesecke will erect stone business building.

Tex., Dallas.—Building.—Hatcher-Ritter Construction Co. (recently reported incorporated under "Miscellaneous Enterprises") will erect fireproof building; 250x150 feet; cost \$10,000; W. R. Hatcher, president; F. E. Ritter, vice-president; John Vilbig, secretary-treasurer.

Tex., Galveston.—Business.—Goggan estate will erect business building; two stories; brick; cost \$10,000.

Tex., Goliad.—Business.—John W. Cole and J. T. Black will erect business building; two stories; brick.

Tex., Mineral Wells.—R. K. Eyle awarded contract to T. L. Cooper, Mineral Wells, for erection of business building; two stories and basement; brick; 50x70 feet; glass front; cost \$18,000.

Tex., Runge.—Lodge.—Sons of Hermann Lodge awarded contract to H. L. Butler, Runge, for erection of lodge hall; cost \$3,500.

Tex., San Antonio.—Hospital.—Reva A. J. Weeks, J. E. Harrison and S. H. C. Burgin are interested in \$250,000 hospital building to be erected by Methodists.

Tex., Waco.—Car Barn, etc.—Citizens' Railway Co. will erect fireproof reinforced-concrete car barn, machine shop, electrical shop, warehouse and commercial electric garage; cost about \$25,000; construction to begin in about 30 days; work in charge of Judson H. Boughton, consulting engineer, St. Louis, Mo.

Tex., Waco.—Cotton Palace.—Waco Business Men's Club is interested in erection of cotton palace to replace burned structure; cost \$75,000.

Tex., Yoakum.—Mercantile and Lodge Building.—Woodmen Building Association awarded contract to Ross & Shall Lumber Co., Yoakum, for erection of building recently mentioned; two stories; brick; 110x100 feet; ordinary construction; electric lighting; cost \$21,000; plans by A. Babb.

Va., Pinners.—Business.—E. Spivey awarded contract to Charles F. Harper, Norfolk, for erection of business block.

Va., Roanoke.—Barn.—Leland C. Moomaw, Route 2, will rebuild barn recently reported burned; 40 to 60-foot structure.

W. Va., Bluefield.—Business.—Huff, Andrews & Thomas are having plans prepared by Pedigo & Garry, Bluefield, for proposed busi-

ness building; three stories and basement; brick; 206x53 feet; fireproof construction.

W. Va., Summerville.—Jail and Dwelling.—Bids addressed to P. N. Wiseman, Clerk Nicholas County Court, until November 30 for erection of county jail and dwelling; certified check for 5 per cent. amount of bid, payable to P. N. Wiseman; plans and specifications on file at offices of P. N. Wiseman, Summerville; B. F. Smith, architect, 817 14th St. N. W., Washington, D. C., and David Dick, architect, Citizens' Bank Bldg., Charleston, W. Va.

### MUNICIPAL BUILDINGS

Fla., Tampa.—Hospital.—Board of Public Works awarded contract to Tensley & Riden of Tampa at \$23,320 to erect hospital; brick; slate roof; 50x100 feet; two stories; plans by Bonfoey & Elliott of Tampa. (Lately mentioned.)

La., New Orleans.—Hospital.—Touro Shakerspeare's Home, T. P. Thompson, president, will erect two annex buildings to cost \$30,000.

Mo., Independence.—City Hall.—City voted issuance of \$30,000 of bonds for erection of city hall; 56x64 feet; two stories and basement; Council chamber 30x50 feet on second floor; separate building in rear for fire department. Address The Mayor.

N. C., Sanford.—Town Hall, etc.—City has begun erection of proposed town hall; two stories; brick; part of first floor to be used as city market; second floor for town hall and fire department. Address The Mayor.

N. C., Wilmington.—Firehouse and Police Station.—Building Committee of Board of Aldermen, W. E. Yopp, chairman, is considering plans submitted by H. E. Bontiz, L. A. H. Koeth, A. B. Mills and Erwin Grossman, all of Wilmington, for firehouse and police station; brick; two stories; cost \$15,000 to \$20,000. (Recently mentioned.)

Okla., Pauls Valley.—City Hall.—Bids will be received by L. W. Wettermark, City Clerk, for construction of city hall; brick and stone; two stories high; 50x95 feet; plans and specifications can be examined at office of J. H. Leedy, architect, Pauls Valley; 3½ per cent. of bid to accompany bid.

Tex., Bryan.—City Hall.—City awarded contract to G. C. Street, Jr., Houston, Tex., to erect city hall and opera-house; two stories; 50x100 feet; cost \$12,000; plans by Jones & Tabor, Houston, Tex. (Noted in August.)

Tex., Palestine.—Fire Station.—City voted \$18,000 bond issue for erection of fire station. Address The Mayor.

Va., Winchester.—City Hall.—City voted issuance of bonds for erection of city hall. Address The Mayor.

### RAILWAY STATIONS

Ala., Birmingham.—St. Louis & San Francisco Railroad, M. C. Byers, chief engineer, St. Louis, Mo., has plans for freight depot; trackage area will be inland with brick paving.

Ala., Brewton.—Louisville & Nashville Railroad, W. H. Courtenay, chief engineer, Louisville, Ky., will enlarge depot.

Ark., Atkins.—St. Louis, Iron Mountain & Southern Railway, James W. Way, consulting engineer, St. Louis, Mo., is considering erection of depot and yard improvements to cost \$5,000; station is to be frame and have 1200 feet of floor space; present station will be remodeled and used as freight depot.

La., St. Joseph.—Texas & Pacific Railway, B. S. Wathen, chief engineer, Dallas, Tex., will not erect depot. (Recently incorrectly reported.)

Md., Baltimore.—Northern Central Railway (Pennsylvania Railroad Co.), J. H. Nichol, principal assistant engineer, Williamsport, Pa., accepted Baltimore Union Station ordinance and authorized construction of building and additional tracks; special committee, consisting of Henry Walters of W. T. Walters & Co., Abell Bldg., 5 South St.; Michael Jenkins of Jenkins Bros., Abell Bldg., both of Baltimore, and others, selected plans by Kenneth M. Murchison, Jr., 320 Fifth Ave., New York; station, as at present designed, will be 60 feet wide and 275 feet long; classical design; stone, terra-cotta, brick and ornamental metals; fireproof; supported by steel frame; station proper and two upper floors for offices; interior finished in marble, plaster, hardwood and leaded glass; main waiting room, on street floor, will be 64 feet wide, 95 feet long and 35 feet high, lighted by ornamental leaded glass sashes placed in ceiling; covered lobby, 330 feet long and 28 feet wide, will extend along track side of building and connect with Charles-street bridge; inclosed lobby, 50 feet wide, will extend across seven passenger tracks (which will be 18 feet below main floor of station) and open into

main waiting-room; eight stairways will lead to train platform; latter will be 20 feet wide, from 000 to 1100 feet long, protected with ornamental steel canopies, and accommodate train of 15 cars; driveway between St. Paul and Charles street and another from St. Paul street to track floor; driveways and walks around building with ornamental railings and clusters of electric lights at intervals; office floors reached by four elevators and two stairways; construction will probably begin next spring, and it is understood contracts for steel work will soon be ready; ordinance provides cost of station be at least \$500,000, exclusive of approaches and foundations. (Lately noted.)

S. C., Yorkville.—Carolina & Northwestern Railway, J. W. Fletcher, Jr., engineer and roadmaster, Chester, S. C., will expend \$4000 in erection of freight and passenger station recently mentioned; frame; 25x102 feet; tin-shingle roof; steam heat; electric lighting; bids opened about November 20.

S. C., Yorkville.—Caroline & Northwestern Railway, L. T. Nichols, general manager, Chester, S. C., will erect passenger and freight depot.

Va., Norfolk.—Norfolk Union Station Co. will be organized by Norfolk & Western Railway, C. S. Churchill, chief engineer, Roanoke, Va.; Norfolk & Southern Railway, F. L. Nicholson of Norfolk, chief engineer, and Virginian Railway, H. Fernstrom of Norfolk, chief engineer, to erect union station; several sketches of ground-floor plan submitted by Reed & Stem of New York.

W. Va., Grafton.—Baltimore & Ohio Railroad, A. M. Kinsman, chief engineer, Baltimore and Charles Sts., Baltimore, Md., contemplates erection of passenger station.

### SCHOOLS

Ala., North Birmingham.—City has voted \$42,000 of bonds to purchase sites and erect schools. Address The Mayor.

Ark., Little Rock.—T. B. Bailey, secretary of School Board, will receive bids until November 27 for erection of eight-room frame school; certified check for \$200; plans and specifications on file at office of T. B. Bailey or Frank W. Gibb & Co., architect, Gazette Bldg., Little Rock.

Ga., Dalton.—City will vote December 8 on \$10,000 bond issue to erect school. Address The Mayor.

Ky., Louisville.—Samuel D. Jones, business director, School Board, will receive bids until November 13 for erection and completion of 16-room school; plans, specifications, conditions, etc., on file at office of Brinton B. Davis, architect, 609-615 Atherton Bldg., Louisville, or of Mr. Jones.

Ky., Mt. Vernon.—City is having plans prepared by Charles A. Hayes, 308 Bank & Trust Bldg., Knoxville, Tenn., for proposed high school; two stories and basement; brick; stone trimmings; cost \$25,000; bids to be opened about November 30.

La., Kentwood.—City awarded contract at \$27,456 to Rubush & Dabbs Construction Co., Meridian, Miss., for erection of proposed school; brick; three stories and basement; low-pressure steam heat; electric wiring; plans by R. H. Hunt, Chattanooga, Tenn.

Okla., Durant.—T. A. Chandler, acting secretary State Board of Public Affairs, will receive bids until November 22 for erection and completion of Southeastern State Normal School in accordance with plans and specifications on file at office of Layton, Smith & Hawk, architects, Oklahoma City, Okla.; President M. E. Moore, Durant; office of State Board of Public Affairs; office of architect State Board of Affairs, Guthrie, Okla.; to be erected under supervision of Board of Public Affairs; prospective bidders wishing exclusive use of plans will apply at office of architect, Oklahoma City; all proposals to be submitted separately and in duplicate on forms furnished to actual bidders by architect State Board of Affairs; certified check for 5 per cent. of total amount highest proposals must accompany each bid, payable to Roy Hoffman, chairman of State Board of Public Affairs; all proposals must be in sealed envelope and addressed "Bids for Southeastern State Normal School."

Okla., Wilburton.—T. A. Chandler, acting secretary State Board of Public Affairs, will receive bids until November 22 for erection and completion of frame building for school of mines and metallurgy in accordance with plans and specifications on file at office of Howe & Hoyt, Kansas City, Mo.; Geo. E. Ladd, Wilburton; office of State Board of Public Affairs; office of architect State Board of Affairs, Guthrie, Okla.; to be erected under supervision of Board of Public Affairs; all proposals to be submitted in duplicate on forms furnished to actual bidders by architect State Board of Affairs;

certified check for 5 per cent. of total amount highest proposals must accompany each bid, payable to Roy Hoffman, chairman of State Board of Public Affairs; usual rights reserved; all proposals must be in sealed envelope and addressed "Bids for Frame Building, State School of Mines;" prospective bidders desiring exclusive use of plans and specifications will apply at office of architect, Kansas City, Mo.

S. C., Carlisle.—Bids will be received until November 17 for brick school; certified check for \$250; plans on deposit of \$10 with J. S. Starr, architect, Rock Hill, S. C.; one-story structure; metal roof; 50x51 feet; four classrooms; cost \$5000; M. C. Deaver, chairman of committee.

Tenn., Memphis.—A. B. Hill, secretary, will receive bids until November 12 for erection of fireproof high school; plans and specifications on file at office of B. C. Alsop & Co., architects, 564 Randolph Bldg., Memphis. (Recently mentioned.)

Tenn., Obion.—City will vote on \$10,000 bond issue for school improvements. Address The Mayor.

Tex., Amarillo.—Rev. D. H. Dunne, pastor of Sacred Heart Catholic Church, interested in erection of boarding school and academy; cost between \$40,000 and \$100,000.

Tex., Denison.—City contemplates erection of new building to replace Lamar School. Address The Mayor.

Tex., Etta (not a postoffice).—Harris county voted \$10,000 of bonds to erect school. Address County Superintendent Pugh, Houston, Tex.

Tex., Laredo.—Home Mission Board, Southern Baptist Convention, will erect proposed church and school building. (See "Churches.")

Tex., Orange.—West Orange School District No. 14 will open bids November 14 for erection of school; two stories; brick.

Tex., Stamford.—City has voted \$15,000 of bonds for school improvements. Address The Mayor.

Va., Emory.—Emory and Henry College, R. G. Waterhouse, president, is having plans prepared by Pember & Kearfoot, Bristol, Tenn., for building to replace present structure; chapel and lecture-rooms; two-story building; 177x50 feet; ordinary construction, with fireproof vault; steam heat; acetylene-gas lighting; cost \$90,000; bids to be opened about December 1.

Va., Norfolk.—School Trustees awarded contract at \$184,437 to East & Hobbs, Norfolk, for erection of high school, and at \$20,872 to Thornton & Williams, Norfolk, for heating and ventilating system. (Recently mentioned.)

### THEATERS

Ark., Hot Springs.—J. Frank Head, John C. Wolf and John G. Higgins incorporated company to erect theater.

Ark., Little Rock.—J. Frank Head has had plans prepared by Kennerly & Iredell, St. Louis, Mo., for theater to cost \$40,000.

Ark., Ozark.—R. H. Bartleson awarded contract to John Friese of Ozark to erect theater; stone; 30x100 feet.

D. C., Washington.—Dixie Amusement Co. will erect moving-picture theater at 8th and H streets N. E.; one story; brick; tin roof; hot-water heat; electric lights; galvanized-iron front and cornices; plans being prepared by C. C. Jones and S. S. Charles, both of Washington.

Mo., St. Louis.—Delmar Theater Co. incorporated with \$50,000 capital stock by E. Harry Pipe, Edna C. Pipe and A. M. St. Vrain.

Mo., St. Louis.—E. Freund will erect moving-picture theater to cost \$6350.

Tenn., Chattanooga.—J. C. Twinam, Temple Court, awarded contract to J. M. Walker, 620 East 4th St., Chattanooga, for remodeling of "Theatro" building, 702 Market St., for moving-picture theater; will lower floor and erect balcony; oak panelling and stucco interior finish; marble wainscot.

Tenn., Nashville.—Keith & Proctor will have plans prepared by John Ebersson of Nashville for theater; reported cost \$90,000.

Tex., Bryan.—G. C. Street, Jr., Houston, Tex., has contract to erect city hall and opera-house. (See "Municipal Buildings.")

Tex., San Antonio.—Knights of Pythias will erect office, store and lodge building; eight stories; elevators; cost \$100,000; Geo. E. Hadley, chairman building committee.

Tex., San Antonio.—M. L. Oppenheimer purchased site at \$24,375 on which he is considering erection of theater or store building.

Va., Norfolk.—Theater Realty Corporation incorporated with \$50,000 capital stock; Jake Wells, president; Otto Wells, secretary.

### WAREHOUSES

Ala., Montgomery.—Louisville & Nashville Railroad, J. I. McKinney, Montgomery, division superintendent, will soon award contract for erection of freight warehouse.

Ark., Camden.—Camden Mill Co., L. Sparkman, president, will build 60x120-foot warehouse and three-room office building. (See "Lumber-manufacturing Plants.")

La., Lake Charles.—Lake Charles Carriage & Implement Co. awarded contract to W. P. Dunn, Lake Charles, for erection of \$2000 warehouse; mill construction; 40x80 feet; ironclad; plans by Harrison Collette, Lake Charles.

Mo., Kansas City.—H. F. Tighe & Co. will erect warehouse; brick; 100x150 feet; one story; cost \$10,000.

Tex., Houston.—City will have plans prepared for warehouse along up-channel waterfront; structure will be 200 feet long by 30 or 35 feet wide; T. C. Tarver, City Engineer.

Va., Portsmouth.—Portsmouth Coal & Ice Co. will erect two-story brick ice-storage warehouse to cost \$2500.

W. Va., Bluefield.—Standard Oil Co., 26 Broadway, New York, awarded contract to W. E. McAter for stone and concrete work and to T. B. Austin (both of Austin) for brick and general work in connection with proposed \$15,000 warehouse; 100x25 feet; first story will have 17-inch walls and second 13, with reinforced-concrete floors and warehouse platforms. Mr. McAter will erect stone wall around entire lot, 15 feet high, upon concrete foundation; inside concrete retaining basin around tanks.

W. Va., Charleston.—Lewis, Hubbard & Co. awarded contract to Moore Construction Co., Charleston, for erection of four-story grocery warehouse; 100x150 feet; cost \$50,000; plans by H. R. Warne, Charleston; fireproof composite construction of light steel cage, reinforced with rods and concrete. ("Ideal System" of W. F. Potthoff Company, Cincinnati, Ohio, recently noted to erect the building.)

### RAILROAD CONSTRUCTION

#### RAILWAYS

Ala., Birmingham.—The Atlanta, Birmingham & Atlantic Railroad is reported to have completed the Mulga branch.

Ala., Birmingham.—The Alabama Terminal Railroad Co. is to complete its line between Birmingham and Bessemer, 10 miles, by February 1. Three concrete and steel bridges are required. Furtwangler & Smith of Birmingham and the Nichols Contracting Co. of Atlanta have the contract. W. A. Hammond is assistant engineer and Alex. Bonnyman chief engineer, the latter at Atlanta, Ga.

Ala., Brewton.—The Louisville & Nashville Railroad has received bids for a new station at Brewton, and preparations for construction will begin immediately. W. H. Courtenay is chief engineer at Louisville, Ky.

Ala., Ensley.—A company is being formed, it is reported, to build an electric railway from Ensley toward Rutledge Springs. A report that the Tennessee Coal, Iron & Railroad Co. is interested is officially denied.

Ala., Montgomery.—Bids have been received by the Louisville & Nashville Railroad for its new freight depot in Montgomery, to cost about \$50,000. New yard tracks and a platform will also have to be built. W. H. Courtenay is chief engineer, Louisville, Ky.

Ark., Atkins.—The St. Louis, Iron Mountain & Southern Railroad proposes to build a new depot and make yard improvements at Atkins. E. F. Mitchell is engineer of construction at St. Louis, Mo.

Ark., Marianna.—The St. Louis, Iron Mountain & Southern Railway Co. (Missouri Pacific system) has been granted a three-year extension of time to build its proposed extension from Marianna to Memphis. E. F. Mitchell is engineer of construction at St. Louis, Mo.

Ark., Ola.—The Chicago, Rock Island & Pacific Railway, according to a dispatch, will erect an automatic coal chute and a clinder pit, besides improving the yard track. J. B. Berry is chief engineer at Chicago, Ill.

Fla., Marianna.—Tracklaying is reported about to begin on the Marianna & Blounts town Railroad, owned by Pennington & Evans, and it is expected to complete it for operation before February 1.

Fla., Pensacola.—The Pensacola, Alabama & Tennessee Railroad, it is reported, will build a large depot at Pensacola. Henry McLaughlin is president. He is reported as saying that construction of line to Mobile Bay is progressing and he hopes to complete it there within eight months.



Ga., Albany.—Concerning a press report that the Albany & Northern Railway would build an extension of about 200 miles to St. Andrews Bay, Fla., on the Gulf of Mexico, an officer says that at present there is no truth in the story.

Ga., Swainsboro.—Alfred Herrington, according to a report, is promoting a plan to build an electric railway from Herrington to Monte Sano and other places.

Ga., Thomasville.—The Mexican Gulf Railway Co. has applied for a charter to build a line from Thomasville, Ga., to St. Joseph's Bay, Fla., 146 miles; capital \$3,000,000; survey made three years ago. The incorporators are W. C. Snodgrass, J. L. Phillips, A. T. Snodgrass, W. I. McIntyre, J. F. Evans, M. M. Cooper, W. H. Mitchell, Lee Neel and Ralph Neel, all of Thomasville.

Ky., Frankfort.—The Louisville & Nashville Railroad, it is reported, contemplates an extension of the Kentucky Highlands Railroad to Versailles, Ky. W. H. Courtenay is chief engineer at Louisville, Ky.

Ky., Richmond.—The Mason & Hanger Company, according to a report quoting an officer, has been given a contract by the Louisville & Nashville Railroad for eight miles of line at Grofton, Ky.

La., Madisonville.—The Houlton Lumber Co. of Madisonville, it is reported, will extend its railroad to connect with Hammond, La.

La., Mansfield.—The Mansfield Railway & Transportation Co. is reported to have completed its line to the Sabine River.

Md., Baltimore.—The Northern Central Railway Co. (Pennsylvania system) has approved the city ordinance for a new union passenger station in Baltimore, also the plan prepared by Kenneth M. Murchison of New York (address 320 Fifth avenue) for the proposed building. New tracks and yards are to be provided, and it is reported that altogether the company will spend from \$1,000,000 to \$2,000,000. Gamble Latrobe is general agent of the company in Baltimore, and A. C. Shand of Philadelphia is chief engineer.

Md., Baltimore.—An officer of the Baltimore & Ohio Railroad denies the press report that it would improve its line between Baltimore and Washington, saying that there is nothing in it.

Md., Cumberland.—The Cumberland & Westernport Electric Railway is reported purchased by Henry L. Doherty & Co. of 60 Wall street, New York, and possibly some improvements may be made. John E. Taylor of Frostburg, Md., is superintendent.

Md., Frederick.—The Frederick & Middletown Electric Railway, it is reported, will extend its line seven miles from Jefferson to Brunswick, Md., and may absorb the Washington, Frederick & Gettysburg Railway, which contemplates an extension from Thurmont to Emmitsburg, Md., about seven miles. A new power-house may also be built at Frederick.

Miss., Gulfport.—The Gulfport & Mississippi Coast Traction Co. of Gulfport will build 39,035 feet of railroad from Long Beach to Pass Christian, Miss., requiring several small bridges. The country is flat and sandy. W. F. Gorenflo is engineer in charge at Gulfport, Miss. Material is now being purchased.

Mo., Ava.—The Kansas City, Ozarks & Southern Electric Railway is reported to have completed its line from Ava to Mansfield, Mo., 17 miles. Further construction is anticipated.

Mo., St. Joseph.—An official of the St. Joseph & Savannah Interurban Railroad Co. is reported as saying that construction contract will be let soon. The proposed railroad is from St. Joseph northward about 15 miles, for which surveys have been made and capital secured. J. H. Van Brunt is president and C. W. Campbell chief engineer, both at St. Joseph, Mo.

N. C., Waynesville.—A Mr. McCormick of Chicago is reported securing rights of way for an electric railway between Waynesville and Asheville via Canton, N. C. W. B. Ferguson of Waynesville may be able to give information.

Okla., Durant.—D. A. Powers of Harrison, Ark., is reported investigating to build a lumber electric railroad from Durant to the Red River, and construction is expected to begin within two months.

Okla., El Reno.—The Adams Construction Co. is reported to have been given a contract to complete the El Reno Interurban Railway into Yukon, Okla.

Okla., Mangum.—The Wichita Falls & Northwestern Railway has completed its line into Mangum, and is now building onward to Elk City as previously reported.

Okla., Oklahoma City.—The El Reno Interurban Railway has completed and put in

operation five miles of line from Oklahoma City west to Putnam City.

Okla., Oklahoma City.—The Citizens' Traction Co. has been chartered to build an interurban railway from Oklahoma City to Shawnee, and possibly between Oklahoma City and Sulphur; capital \$30,000. The stockholders are L. E. Patterson, W. F. Harn and J. H. Winans of Oklahoma City, Homer S. Hurst of Holdenville and Alfred Hare of Shawnee, Okla. This is a result of a merger of the Patterson and Hurst railway plans.

Okla., Tulsa.—An officer of the Oklahoma Union Traction Co. is reported as saying that 2½ miles of electric railway are being built from Tulsa to Orcutt Lake. The line will run via Red Fork to Sapulpa, 15 miles. A. A. Small is president, E. F. Tucker vice-president, G. C. Stebbins secretary, S. A. Orcutt treasurer, L. Cox superintendent.

Okla., Wynoka.—The Winnipeg, Salina & Gulf Railroad Co. will, it is reported, build a line about 1500 miles long from Winnipeg, Manitoba, via Superior and Beloit, Wis.; Great Bend, Kans.; Wynoka, Okla., and Weatherford, Tex., to a point on the Mexican boundary, besides a branch from Wynoka to Oklahoma City. F. H. Taylor and G. E. Graves are quoted in a St. Louis dispatch as making the announcement. J. W. Wagner of Milwaukee, Wis., is said to be interested, and offices are to be opened by Messrs. Taylor and Graves at St. Louis and Kansas City, Mo., and Salina, Kans.

S. C., Columbia.—The Seaboard Air Line has applied to the City Council for permission to build a double-track steel-girder bridge in place of the single-track wooden bridge crossing Taylor street. It also proposes to widen the wooden bridge over Blanding street. W. L. Seddon is chief engineer at Portsmouth, Va.

S. C., Rock Hill.—Concerning the charter of the Carolina Traction Co., one of the incorporators writes that there is nothing to make public at present.

Tenn., Knoxville.—An officer of the Knoxville, Sevierville & Eastern Railway is quoted as saying that 14 miles of line have been finished from Knoxville toward Sevierville, Tenn., 26 miles. The Revillo Construction Co. of Knoxville is the contractor, and W. A. Seymour is chief engineer.

Tenn., Memphis.—An official confirms the report of the organization of the Tennessee Traction Co. to build a line from Memphis via Jackson to Nashville, Tenn., approximately 210 miles; president, W. K. Burton; vice-president, W. R. Gilbert; secretary and treasurer, Horace N. Smith; general manager, George E. Bushnell, Memphis, Tenn. The other directors are Sam P. Walker, C. R. Frazer, J. H. Smith, R. A. Godwin and W. P. Halliday.

Tenn., Mount Pleasant.—The Middle Tennessee Railroad Co., it is reported, will build an extension from Water Valley to Mount Pleasant, about 20 miles. Austin Harlan and others are interested.

Tex., Brownwood.—Contracts will be let, it is reported, between December 15 and January 1 for building the Gulf, Brownwood & Cisco Railroad from Brownwood northeast to Romney, Tex., via Cleo, May and Rising Star. S. F. Johnson of the Brownwood Commercial Club and others are interested.

Tex., Bryan.—The Bryan & Brazos River Railway Co. proposes to build 20 or 25 miles of line from Smetan, in Burleson county, to a point down the Brazos River, which will be bridged nine miles west of Bryan. Those interested are J. W. Howell, W. E. Saunders, J. W. English, J. E. Butler, J. K. Parker, G. S. Parker, J. A. Myers, A. W. Wilkerson and E. H. Astin, all of Bryan, Tex.

Tex., Dimmitt.—Miss Frances Storrs of Dimmitt, Tex., it is reported, contemplates building a railroad 65 miles long from Dimmitt to a connection with the Santa Fe system.

Tex., Glen Rose.—The Glen Rose & Walnut Springs Railway Co. has elected officers as follows: John C. Lees, president; John Shields, treasurer; F. E. Johnson, secretary, all at Glen Rose, Tex.

Tex., Laredo.—C. M. Fish, general passenger and freight agent of the Texas-Mexican Railway at Laredo, is reported securing rights of way for a proposed railroad from Laredo along the Rio Grande to Rio Grande City, and St. Louis capitalists are said to be interested. J. C. Reister of the San Antonio & Aransas Pass Railway is also said to be concerned.

Tex., Robert Lee.—The Colorado-Concho Railway Co. is reported organized to build a railroad from Robert Lee to Colorado City, Tex., about 60 miles, and survey is to begin immediately. The Mayor at Robert Lee may be able to give information.

Tex., Rotan.—An officer of the Texas Cen-

tral Railroad says that surveys are being made from the western terminus, but the company is not in position to make any statement at present as to extension.

Tex., San Angelo.—Grading is reported begun on the Santa Fe extension from San Angelo to Sterling City, Tex.

Tex., San Antonio.—J. P. Nelson of San Antonio, Temple D. Smith of Fredericksburg, Tex., and G. A. Gessner, chief engineer of the Continental Construction Co., Toledo, O., are reported negotiating preparatory to building the proposed railroad between San Antonio and Fredericksburg, on which construction is to begin in December.

Va., Keokee.—The Keokee Consolidated Coke Co. is reported grading for a branch railroad.

Va., Monterey.—The incorporators of the West Virginia Railway Co., incorporated at Charleston, W. Va., to build part of the proposed line from Clifton Forge, Va., to Keyser, W. Va., are John J. Stoutenburg, John G. Rogers and Verne M. Bovie of New York City; Benjamin H. Hiner of Franklin, W. Va., and Charles M. Lumford of Monterey, Va. Another company will be incorporated in Virginia to build part of the line in that State.

Va., Norfolk.—The Norfolk & Portsmouth Belt Line has purchased the Elizabeth River Railway, and it is reported extensions may be made. George S. Shafer is superintendent of the Belt Line at Port Norfolk, Va.

W. Va., Berwind.—An officer of the Norfolk & Western Railway denies the report that bids will be asked for an extension from Berwind.

W. Va., Logan.—The Guyan Valley Branch of the Chesapeake & Ohio Railway, it is reported, will be extended from the mouth of Dingess Run to the mouth of Buffalo, about 12 miles. Survey is begun. H. Pierce is engineer of construction at Richmond, Va.

## STREET RAILWAYS

Fla., Sanford.—Construction is being pushed on the Seaford Street Railway, in which A. P. Connolly and others are interested.

Okla., El Reno.—The El Reno Street Railway Co., it is reported, contemplates extending about two miles.

Okla., Oklahoma City.—W. A. Haller, general manager of the Oklahoma Railway, is quoted as saying that the company expects to build about 25 miles of new track, and contract will be placed within a month.

Tenn., Chattanooga.—The construction of a line along the ridge to Chickamauga Park is reported contemplated by the Chattanooga Railway & Light Co. W. E. Boileau is general manager and E. D. Read chief engineer.

Tex., Corpus Christi.—The Corpus Christi Street & Interurban Railway Co. has filed its charter; capital \$100,000. Incorporators are Daniel Hewitt and V. S. Heinley of Corpus Christi, Tex., and Earl C. Heinley of Colorado City, Col.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery and supplies wanted.

Acetylene Plant.—See "Lighting Plant."

Boiler.—F. A. Howe, Jr., Huntsville, Ala., wants new or second-hand boiler; about 100 to 125-horse-power; complete with fittings and stack; to carry 100 pounds or more; for electric-light plant, Curley, Ala.

Boiler.—Thornhill Wagon Co., Lynchburg, Va., wants 100-horse-power boiler.

Boilers.—Twin City Equipment Co., 319 Andrus Bldg., Minneapolis, Minn., wants two 250 to 300-horse-power vertical high-pressure boilers.

Boilers.—Girten-Russ Supply Co., 110 Main St., Houston, Tex., wants agents' prices on boilers.

Boring and Turning Mill.—Southern Equip-

ment Co., 19 Young St., Houston, Tex., wants large-sized boring and turning mill.

Breakwater Construction.—L. Lopez, chairman Street Committee, Gulfport, Miss., will receive bids until November 25 for construction of 400 or 500 feet of wooden breakwater along Beach street; plans and specifications on file in office of City Clerk, City Hall.

Broom Machinery.—Wm. C. Fosnot, 110 North Buchanan St., Amarillo, Tex., wants information and prices on equipment for broom factory.

Building Materials.—Hollady & Crouse, Box 213, Greensboro, N. C., want prices on building materials for construction of brick and stone postoffice at Fayetteville, N. C.

Building Materials.—E. A. Poe Brick Co., Fayetteville, N. C., wants delivered prices on car lots high-grade lime, cement, plaster, plaster hair and other building materials.

Building Materials, etc.—Henry E. Freeson, 221 Duffy St. West, Savannah, Ga., wants prices on plumbing, locks, hardwood flooring, papering and slate roof for two double houses costing \$10,000.

Building Supplies and Equipment.—John E. Wood, 903 East Adams St., Jacksonville, Fla., wants to represent manufacturers of structural steel, ornamental iron, structural steel paint, general building supplies and equipment; home territory.

Butter Machinery.—R. W. Gwyn, North Wilkesboro, N. C., wants addresses of manufacturers of machinery to cleanse or renovate butter.

Candy Machinery.—Carolina Candy Co., Greenville, S. C., wants vacuum kettle and other candy-making machinery.

Cannery.—Marcus Phillips, secretary of committee, Riviera, Tex., wants information on establishment of cannery factory and prices on equipment.

Cell Work.—Albert Lyons, Rogersville, Tenn., wants prices on cell work for county jail.

Cement.—See "Building Materials."

Clamping Machine.—Jones Cold Store Door Co., Hagerstown, Md., wants second-hand door clamping machine.

Cold-storage Doors.—T. L. Johnson, Johnson & Miller Company, Shepherdstown, W. Va., wants prices on cold-storage doors.

Conveying Machinery.—See "Turpentine Machinery."

Cotton Webbing.—J. W. Irving & Co., 308 Mutual Bldg., Richmond, Va., wants addresses of manufacturers of cotton webbing for razor straps.

Crane.—John MacD. Greene, Drexel Bldg., Philadelphia, Pa., wants 10 or 12-ton standard-gauge locomotive crane; self-propelled and equipped for clamshell bucket; second-hand.

Distilling Machinery.—See "Turpentine Machinery."

Dredge Bucket.—Robert Ranson, Palatka, Fla., wants second-hand orange-peel Hayward dredge bucket; ½ to ¾ cubic yard capacity. State price and condition.

Dredge Buckets.—John MacD. Greene, Drexel Bldg., Philadelphia, Pa., wants second-hand ¾-yard Hayward orange-peel dredge buckets.

Dredge Buckets.—Twin City Equipment Co., 319 Andrus Bldg., Minneapolis, Minn., wants two two-yard Page bucketful circle drag-line machines for Omaha delivery.

Electric-light System.—City of Camden, S. C., desires to communicate with parties interested in franchise for lighting city with electric lights. Address The Mayor.

Electrical Machinery.—Frank P. Davis, secretary Oklahoma Hospital & Sanitarium Co., Enid, Okla., wants catalogues and prices on electrical machinery for hospital and sanitarium buildings.

Electrical Machinery.—Twin City Equipment Co., 319 Andrus Bldg., Minneapolis, Minn., wants three 30-horse-power and one 60 to 75-horse-power motors, 220-volt, 60-cycle, 3-phase, second-hand, for Denver delivery; also wants 750-kilowatt 250-volt direct-connected generators.

Elevators.—Jefferson Barracks, Mo.—Proposals will be received until November 22 for furnishing and installing invalids' electric elevator in hospital building. Information furnished on application. Address Capt. Stanley H. Ford, Q. M.

Elevators.—Frank P. Davis, secretary Oklahoma Hospital & Sanitarium Co., Enid, Okla., wants catalogues and prices on elevators.

Engine.—Jones Fire-Brick Co., Oak Hill, O., wants second-hand Corliss engine; about 20x48-inch cylinder; right-hand, and to run under.

Engines.—Girten-Russ Supply Co., 110 Main St., Houston, Tex., wants agents' prices on engines.

**Engines.**—Twin City Equipment Co., 319 Andrus Bldg., Minneapolis, Minn., wants 2000-horse-power vertical cross-compound engines.

**Excelsior Machinery.**—Lambard-Hart Realty & Investment Co., Room 4, over Shawnee National Bank, Shawnee, Okla., wants excelsior cutting machines; dealer's prices.

**Flooring.**—See "Building Materials, etc."

**Flour-mill Machinery.**—Bally & Co., Claremont, N. C., want addresses of manufacturers of and dealers in roll-grinding and corrugating equipment for wheat roller mills.

**Frogs and Switches.**—J. M. Fahey, West-ernport, Md., wants addresses of firms handling mine frogs and switches.

**Furniture.**—Commissioners' Court of Harris County will consult furniture manufacturers at Houston, Tex., December 4, and will then consider bids on furnishing courthouse; usual rights reserved; blueprints may be had from Lang & Wittich, architects, Dallas, Tex.; A. E. Amerman, County Judge.

**Furniture.**—Frank P. Davis, secretary Oklahoma Hospital & Sanitarium Co., Enid, Okla., wants catalogues and prices on hospital furniture.

**Heating and Ventilating Plant.**—Board of Education, Oklahoma City, Okla., will receive proposals until November 15 for installation of heating and ventilating plant in each of two eight-room ward school buildings now in course of erection on Culbertson Heights Addition, and other on Park Place Addition; plans and specifications prepared by Layton, Wemyss-Smith & Hawk, architects; plans and specifications may be seen at office of architects, Majestic Bldg., Oklahoma City, or of Gus A. Elbow, secretary Board of Education, India Temple, Oklahoma City; certified check for 5 per cent. of bid.

**Hoisting Engine.**—Carroll-McGuire Contracting Co., Lynchburg, Va., wants medium-sized hoister, double or single drum, for cars.

**Hoisting Machinery.**—Gus S. Currier, 301 Boyce St., Chattanooga, Tenn., wants single or double platform hoist for raising wheelbarrows on five-story buildings, etc.; electric or gasoline preferred.

**Ice Machinery.**—Southern Equipment Co., 19 Young St., Houston, Tex., wants 10 to 15-ton ice plant.

**Knitting Machinery.**—J. T. Duncan, Douglasville, Ga., wants hosiery knitting machinery.

**Lathe.**—Southern Equipment Co., 19 Young St., Houston, Tex., wants second-hand large-sized spindle lathe. (McCabe preferred.)

**Leather Manufacturers.**—See "Razor Strop."

**Levee Construction.**—Commissioners Cotton Belt Levee District No. 1, Greenfield Quarles, secretary, Helena, Ark., will open bids November 24 for 100,000 cubic yards levee work; information on application.

**Lighting Plant.**—Frank P. Davis, secretary Oklahoma Hospital & Sanitarium Co., Enid, Okla., wants information and prices on acetylene lighting for hospital buildings.

**Locomotives.**—Twin City Equipment Co., 319 Andrus Bldg., Minneapolis, Minn., wants two 18-ton second-hand (Porter or Vulcan) three-foot-gauge dinkies for Omaha delivery.

**Lumber.**—National Showcase Co., Columbus, Ga., wants 4-4s, 1sts and 2ds plain oak; also 4-4s, 1sts and 2ds unselected birch.

**Lumber Calculator.**—J. B. Jemison, Williams Block, Thomasville, Ga., wants lumber calculator; to give number of feet, board measure, in given size of lumber measured by fractional inches.

**Mechanical Calculator.**—I. Franklin White, Candler Bldg., Atlanta, Ga., wants address of inventor of mechanical interest calculator.

**Mining Machinery.**—Will W. Moore, Lock Box 337, Cuero, Tex., wants complete equipment of coal-mining machinery, including hoisting engine, 12x24 inches or 10x20 inches; two safety cages; 12 one-ton self-dumping mine cars; also miners' supplies; new or second-hand.

**Mining Slopes and Shaft.**—Winding Gulf Colliery Co., Winding Gulf, W. Va., invites bids on two slopes, about 15 to 150 feet, respectively, and on one shaft about 75 feet deep; president is Justis Collins, 1503 Union Trust Bldg., Cincinnati, Ohio, but address all communications to Winding Gulf.

**Paint.**—See "Building Supplies and Equipment."

**Paper-box Machinery.**—Dr. H. H. Edwards, Mill Spring, N. C., wants addresses of manufacturers of machinery to make paper boxes.

**Paving.**—Bids will be received at office of Bob Parman, City Clerk, Oklahoma City, Okla., for grading, paving, curbing and draining Walker avenue; paving material

to be sheet asphalt on five-inch Portland cement concrete foundation; plans and specifications on file in office of City Clerk; certified check, 3 per cent. of bid.

**Paving.**—Mayor's office, Vicksburg, Miss. Proposals for paving following streets with vitrified brick, granitoid, bitulithic, asphalt, mineral rubber and creosoted wooden blocks will be received by Mayor and Aldermen December 5: Walton street, nine blocks; Drummond street, four blocks; Veto street, two blocks. Plans and specification to be had on application to C. R. Twiss, City Engineer. Separate bids to be made on each street. J. J. Hayes, Mayor.

**Paving.**—Bids will be received at office of Bob Parman, City Clerk, Oklahoma City, Okla., for grading Military and Lake avenues, 33d, 30th and 29th streets, etc.; certified check, 3 per cent. of bid.

**Paving.**—Bids will be received at office of T. J. Powell, Mayor, Providence, La., until November 15 for paving 34 blocks of sidewalks; bids to be made by square foot; certified check, \$250; work is to be according to lines and grades furnished by town; specifications on file in office of Mayor; contractor to furnish material.

**Paving.**—D. B. Traxler, chairman committee, Greenville, S. C., wants to correspond with street-paving companies relative to bids on construction of three-quarters mile experimental city paving with view to probable large contract later.

**Piping.**—J. B. Winklett, City Secretary, Dallas, Tex., will receive bids until December 8 for furnishing 5000 tons of piping and specials to be used in construction of main line from White Rock reservoir and branch lines necessary to distribute water from new reservoir; each bidder to state price per ton on each class of pipe delivered and also price on specials; certified check, \$100; D. F. Sullivan, Water-works and Sewerage Commissioner.

**Plating Plant.**—Arlington Art Glass Co., 53½ Auburn Ave., Atlanta, Ga., wants to correspond relative to purchase of small plating plant; to plate with copper, brass and silver.

**Pump.**—Board of Affairs, J. S. Dunn, president, Parkersburg, W. Va., will open bids November 18 for furnishing duplex steam pump and all appurtenances as shown on plans and in accordance with specifications on file in office of Board of Affairs; printed forms provided by Board of Affairs; certified check for 5 per cent. of bid; Frank Good, City Auditor.

**Pumping Machinery.**—Frank P. Davis, secretary Oklahoma Hospital & Sanitarium Co., Enid, Okla., wants catalogues and prices on gasoline pumping machinery.

**Pumps.**—Girten-Russ Supply Co., 110 Main St., Houston, Tex., wants agents' prices on pumps.

**Rails.**—Southern Equipment Co., 19 Young St., Houston, Tex., wants 60, 12, 16 and 20-pound relaying rails, Alabama delivery.

**Razor Strop.**—I. W. Irving & Co., 308 Mutual Bldg., Richmond, Va., wants to correspond relative to placing order for manufacture of automatic razor and blade strop.

**Refrigerating Machinery.**—Pennsylvania Equipment Co., 1209 West End Trust Building, Broad and South Penn Square, Philadelphia, Pa., wants prices on two plants of 500 and 1000 tons capacity, respectively, for export.

**Road Construction.**—Bids will be received at office of P. St. J. Wilson, State Highway Commissioner, Richmond, Va., until December 1 for necessary grading and furnishing and placing necessary pipe and culverts on proposed road from Clintwood, Va., to Wise county lines; plans and specifications on file at clerk's office at Clintwood; specifications furnished on application to Highway Commissioner, Richmond; certified check, \$200.

**Rock-drilling Machinery.**—C. M. Miller, Lenoir, N. C., wants rock-drilling machinery.

**Roofing.**—Rev. E. B. Stanfield, Spring Hope, N. C., wants prices on slate or tin roofing for \$8000 edifice.

**Roofing.**—See "Building Materials, etc."

**Scale.**—Bids will be received at office of Post Quartermaster, Fort Barrancas, Fla., until December 4 for construction of 80-ton railroad-track scale. Blank forms and further information will be furnished on application to post; G. G. Bailey, Major, and Chief Quartermaster, Atlanta, Ga.

**Sewer Construction.**—Bids will be received at office of Bob Parman, City Clerk, Oklahoma City, Okla., until November 22 for construction of sanitary main sewer, consisting of lines A, B, C and E; also for construction of lateral sewer in Gault's Addition, Gault & Johnson's Addition, Park Place Addition, etc.; plans and specifications on file in office

of City Clerk; certified check for 3 per cent. of bid.

**Shears.**—Pennsylvania Equipment Co., 1209 West End Trust Bldg., Broad St. and South Penn Square, Philadelphia, Pa., wants double-angle shears, to shear 8x8-inch angles and 10-inch channels.

**Signs.**—Fulton-Smith Tobacco Co., Mt. Airy, N. C., wants lithographed signs for advertising tobacco.

**Steam Shovels.**—Twin City Equipment Co., 319 Andrus Bldg., Minneapolis, Minn., wants two 20-ton Bucyrus, Vulcan or Model 60 Marion shovels; Minnesota delivery.

**Steel Bridges.**—C. M. Miller, Lenoir, N. C., engineer in charge, wants steel bridges for Blowing Rock turnpike construction.

**Stone Sills, etc.**—Rev. B. E. Stanfield, Spring Hope, N. C., wants prices on stone window and door sills for \$8000 edifice.

**Structural Steel.**—See "Building Supplies and Equipment."

**Tanks.**—D. W. Alderman & Sons Company, Alcolu, S. C., wants two second-hand iron or steel stationary tanks; about 5000 gallons each.

## INDUSTRIAL NEWS OF INTEREST

### Warren & Welton, Architects.

Architects Warren & Welton announce the removal of their offices to 1607-11 Empire Bldg., Birmingham, Ala.

### Davis Colliery Co. Announcement.

The Davis Colliery Co. of Elkins, W. Va., announces the appointment of R. B. Isner as general sales agent, with offices at Elkins.

### A Machine Shop Offered.

A machine and repair shop on the Belt Line connecting Norfolk and Portsmouth is offered for sale. It is complete and ready for operation. For details address "Plant," Box 677, Norfolk, Va.

### A Wm. B. Seafie Contract.

Contract has been awarded to the Wm. B. Seafie & Sons Co., Pittsburg, Pa., for several steel-frame structures comprising the large addition to the plant of the Allegheny Steel Co. at Brackenridge, Pa.

### Eugene Forshoe Offers Services.

Eugene Forshoe of Sumter, S. C., intends to engage in general contracting, including plumbing, tinning and heating. He is now prepared to correspond relative to the erection of all classes of buildings.

### Distributing Agency Wanted.

E. J. Gartley, P. O. Box 848, Jacksonville, Fla., has large storage capacity and good facilities for distributing light merchandise in his city and State. He invites correspondence on the subject.

### Southern States Cotton Oil Refining Company.

The Southern States Cotton Oil Refining Co. of Wilmington, N. C., will establish an office at 43-45 Exchange place, New York, on December 1. Archibald Meldrum, president of the company, will be in charge.

### Capital Wanted for Manufacturing.

The owners of a manufacturing enterprise in the South want to borrow \$20,000. They claim that the opportunity is one offering profitable investment. Particulars can be obtained by addressing "C. B. Co.," care of Manufacturers' Record.

### To Deal in Coal Lands.

The Worikell Company of Morgantown, W. Va., has been organized for the purpose of dealing in coal lands and other real estate. It has at present several desirable tracts of coal in Kentucky, West Virginia and Ohio. These properties are offered for development, and investigation is invited.

### Slate Company Wants Representative.

A leading New England slate company desires to engage a representative in the South. It has modern facilities for quarrying and manufacturing slate products, and especially roofing, which it believes can be offered to advantage throughout the South. Letters addressed to "New England Slate," care of Manufacturers' Record, will be forwarded.

### Soapstone Plant for Sale.

The Virginia Slate Co. plant at Arvonla will be offered for sale at public auction on December 2. This property includes land, building, machinery, tools, manufactured slate, soapstone deposits, etc., all ready for operation. For particulars address G. E. Caskie, Commissioner, Lynchburg, Va., or

Timber Sizer.—Southern Equipment Co., 19 Young St., Houston, Tex., wants timber sizer; about 20x30 inches.

**Turpentine Machinery.**—United Turpentine Co., 618 Atlantic National Bank Bldg., Jacksonville, Fla., will want prices on distilling apparatus, worm condensers and conveyor chains.

**Typewriter Supplies.**—I. Franklin White, Candler Bldg., Atlanta, Ga., wants samples and quotations on typewriter ribbons and carbon paper.

**Ventilating Equipment.**—See "Heating and Ventilating Plant."

**Watchman's Clocks.**—McClary-Jemison Machinery Co., Birmingham, Ala., wants catalogues, prices and jobbers' discounts on watchman's clocks with 20 and 40 stations.

**Woodworking Machinery.**—Broens Carriage & Wagon Co., 365 Court Ave., Memphis, Tenn., will open proposals late in December for woodworking machinery.

**Woodworking Machinery.**—John J. Ruge, Apalachicola, Fla., wants information and prices on machinery for veneer plant; will operate by power used, in season, for oyster plant.

apply to S. T. Martin on the property, Arvonla, Va.

### William C. Spiker, Engineer.

Offices have been established in the Empire Building, Atlanta, Ga., by William C. Spiker, engineer. He is an associate member of the American Society of Civil Engineers, a member of the Cornell Society of Civil Engineers of New York, and has been giving his attention to hydro-electric plants, manufacturing plants, warehouses and office buildings. Manufacturers and others who contemplate the construction of buildings or plants are invited to correspond with Mr. Spiker.

### Bag Fillers and Fasteners.

Messrs. James Reoney and J. A. McNulty of Baltimore have been granted patents for metallic fasteners for lime, cement and phosphate bags. They are designing machinery for the purpose of filling the bags with all such materials as it is found difficult to employ manual labor to accomplish. Mr. McNulty has also designed machinery for manufacturing the bag fasteners and machinery for attaching the fasteners to bags.

### Engineer Seeks an Engagement.

H. P. Hodges of Scranton announces that he is seeking to become connected with an engineering company developing water-power properties, with operators of established plants or with companies building water-power machinery. He is a civil-engineering graduate and has had experience with machinery, steam, gas, electrical and water-power enterprises. Complete information can be obtained by addressing Mr. Hodges at 616 Mulberry St., Scranton, Pa.

### Large Drykiln Contract.

The Grand Rapids Veneer Works of Grand Rapids, Mich., has received contract from the F. B. Williams Cypress Co. for the installation of four large kilns. It is stated this will be the only cypress kiln-drying plant on a large scale at present in the South. The kilns will be of concrete foundation, brick and tile walls, with concrete and tile roof. F. H. Kelly, manager of the Grand Rapids Veneer Works drykiln department, who is at present in the South, intends to remain to supervise the contract. The Williams plant is at Patterson, La.

### Increasing Use of McKeen Motor Cars.

A gasoline motor car which has been favorably introduced and which is rendering satisfactory service, as attested by the increasing demand for it, is the McKeen car. This car is manufactured by the McKeen Motor Car Co. of Omaha, Neb., and there are at present 57 of them in service. The company has recently sent one 70-foot and two 55-foot cars, coupled together and moving independently, to Portland, Ore., the 70-foot car to the Salem, Falls City & Western Railroad, and one each of the 55-foot cars to the Oregon & California Railroad and the Oregon Railroad & Navigation Co.

### New J. Stevens Fire-Arms.

Announcement is made that the J. Stevens No. 70 visible-loading repeating rifle is now made in two models, one for .22 short and the other for .22 long rifle cartridges. The barrel used for the .22 short cartridge is rifled with a slow twist, one turn in 25 inches. The barrel used for the .22 long rifle cartridge is rifled with a quicker twist, one



turn in 16 inches. The No. 70 rifle manufactured for .22 short will handle 15 cartridges, and for the .22 long rifle 12 cartridges. Hardware and sporting-goods dealers carry this rifle in stock and are in position to quote prices. The No. 70 visible-loading repeater has met with a remarkable sale, and shooters should inspect this new firearm at retail stores, or the rifle will be shipped directly by the J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

#### An Investment Opportunity.

E. B. Bailey, Monticello, Fla., is offering an investment opportunity to capitalists who are interested in the South. He states that he owns about 9900 acres of land containing limestone, brick clay, fuel and water-power. It is his purpose to develop the property, and he is desirous of arranging for the necessary capital, or he will dispose of an interest to parties who will assist in the development. The development plans include the establishment of a brick plant, limekilns, canning factory, etc. The property is in Jefferson county, Florida, within one and a half miles of the Seaboard Air Line Railway, and because of its location is claimed to be especially suitable for establishing plants to meet the demands of trade in Panama and farther south.

#### Baker Ice Machine Co.

It is announced that the Baker Ice Machine Co. is the new name of the former Larsen-Baker Ice Machine Co. and that the capital stock has been increased from \$250,000 to \$350,000. The company finds it necessary to increase its output of 25 machines per month in order to meet the increasing demand for Baker ice-making and refrigerating machinery. This company has for some years made a specialty of the manufacture of small and medium-sized units, and has spared no expense to keep its equipments entirely modern so that the most efficient service can be obtained by their use. Economy, simplicity and durability are prime factors in the success of the Baker machines, now in use throughout this country and in foreign countries. The Baker Ice Machine Co. has its offices and factory at 20th and Nicholas streets, Omaha, Neb.

#### "Sirocco" and Steel-Plate Fans.

The American Blower Co. of Detroit, Mich., offers the following comparison of "Sirocco" with steel-plate fans: "1. Assume that a capacity of 24,000 cubic feet of air per minute is desired at  $\frac{1}{2}$ -ounce pressure:

	Steel-plate fan.	"Sirocco" fan.
Size of fan or height.	120"	No. 10. 108½"
Speed.	250	180
Horse-power.	9	7

Saving in horse-power for same capacity..... 22%

"2. Assume a given horse-power, say 15, which it is desired not to exceed:

	Steel-plate fan.	"Sirocco" fan.
Size of fan or height.	160"	No. 14. 152"
Capacity.	40,000	50,000
Speed.	188	132

Increase in capacity for same power. 25%

"3. Assume a given head room, say 12 feet, not to be exceeded:

	Steel-plate fan.	"Sirocco" fan.
Size of fan or height.	140"	No. 13. 141"
Capacity at $\frac{1}{2}$ oz. ....	31,000	42,000
Speed.	212	140

Increase in capacity for same space occupied..... 39%

"Some idea of the great capacity of the "Sirocco" wheels may be gained from the fact that given two wheels of same size running at same pressure, the "Sirocco" wheel would have 50 per cent. greater capacity than the old-style fan wheel at a speed 40 per cent. less. It will be noted that these advantages may be summarized as follows: 1. Increased efficiency, resulting in a saving in horse-power for same capacity. 2. Increase in capacity of fan for same power. 3. Smaller space occupied for a given capacity or increased capacity for the same space occupied. 4. Slow speed, resulting in quiet operation."

#### Recent Link-Belt Contracts.

Among recent orders received by the Philadelphia plant of the Link-Belt Co. were the following: Georgia, machinery for locomotive coaling station; Massachusetts, coal-handling machinery for textile industry, cloth-roll elevators, industrial railway system and a number of maximum silent chain drives; New Jersey, two complete retail coal-pocket equipments, tray elevator for pottery, conveying machinery for licorice root, coal elevators and conveyors and miscellaneous coal-handling machinery; Pennsylvania, "Peck" carrier outfit, culm-handling machinery, conveyors, maximum silent

chains, coal-handling machinery, miscellaneous conveying machinery, coal elevator for foundry, roller flight conveyors, ashes chutes and grates, sand-handling machinery for foundries, locomotive coaling station outfits, coal-handling machinery for glass works and elevator for rice coal; Virginia, conveyors for handling lime and locomotive coaling station; West Virginia, car haul for coal-mining company, maximum silent chain drives for textile company, car puller and flight-conveyor outfit, complete coal-handling outfit for large industrial company and miscellaneous coal-conveying machinery. Export, Massacutite conveyor, single-stand chain and bucket elevator, bagasse feeders, Renold roller chain, maximum silent chain, mud conveyor, water elevators, bucket conveyors, screw conveyors and juice strainers.

#### Scherzer Rolling-Lift Bridges.

With the resumption of improved financial conditions the railroad companies are inaugurating many improvements in roadway, especially double and multiple tracking to secure increased facilities, economy and safety for handling traffic. Among other improvements a number of obstructive center-pier swing bridges are being replaced by modern Scherzer rolling lift bridges. One of the most prominent improvements of this nature is the removal of the single-track center-pier swing bridge of the Baltimore & Ohio Railroad over the Cuyahoga River at Cleveland and its replacement by a double-track Scherzer rolling lift bridge having a movable span of 290 feet from center to center of bearings. This bridge will be the longest double-track single-leaf bascule bridge yet constructed. Last year a single-track Scherzer rolling lift bridge having a movable span of 230 feet was completed for the Baltimore & Ohio, replacing a center-pier swing bridge on the west channel of the Cuyahoga River, effecting a great improvement for the interchange of traffic between the railroad and the large modern vessels navigating this channel to the docks of the railroad. The Seaboard Air Line recently completed a single-track Scherzer bridge having a movable span of 196 feet across the navigable waterway to the new wharfs and docks at Tampa, Fla. Another Scherzer rolling lift bridge is being constructed by this railroad across the Savannah River, replacing an obstructive center-pier swing bridge. The San Pedro, Los Angeles & Salt Lake Railway recently completed a single-track Scherzer bridge across the San Gabriel River at San Pedro Harbor, California, this being the longest span bascule bridge on the Pacific coast. A Scherzer bridge was recently selected and placed under contract for construction as the movable portion of the causeway being built to connect Galveston with the mainland. This bridge is designed to also accommodate highway traffic. Foreign orders for Scherzer bridges included Buenos Ayres Great Southern Railway, to cross the Riachuelo River at Buenos Ayres, Argentina; an electric railway and highway bridge for city of Dublin, Ireland; a bridge to cross the Lachine Canal, Canada, for the Canadian Pacific Railway. The Buenos Ayres bridge is the third order received from the Buenos Ayres Great Southern, and is a result of the satisfactory completion and operation of the first double-track bridge of the Scherzer type placed in service a short time ago. These bridges are built by the Scherzer Rolling Lift Bridge Co. of Chicago.

#### TRADE LITERATURE.

##### The Burroughs for October.

Commemorating the visit of the honorary commercial commissioners and trade experts of Japan to its plant on October 1, 1909, The Burroughs, a magazine published by the Burroughs Adding Machine Co. of Detroit, Mich., has been issued for October. The publication is illustrated and contains, among a number of interesting articles, one on the visit of the Japanese visitors, a sketch of Baron Shibusawa, an article relative to the merit of the Burroughs machines, and other interesting features.

##### The Clow System of Heating.

Steam and hot-water heating have long been recognized by architects and the general public as among the best of all heating systems. With the ordinary steam or hot-water heating there are periods after the fires are out or before they have been started when heat is desired, but not easily available because of the trouble and expense to meet temporary needs. For years James B. Clow & Sons, 342-358 Franklin St., Chicago, Ill., have been working on this problem, and have produced a radiator the use of which is said to demonstrate that it is nearly perfect as a heating system. There are two types of the Clow patent radiators—the

the gas steam and gas water—either of which is capable of being used as an independent plant with gas only for fuel or as part of a regular steam or hot-water system with gas coal for fuel. The Clow radiators are adapted to residences, apartments, banks, stores, restaurants, churches, halls, offices, railway stations, clubs, hotels and other buildings, and are comprehensively described and illustrated in a catalogue which the company is distributing.

#### Important Concrete Information.

Cement users will be interested to know that revised editions have been published by the Vulcanite Portland Cement Co., Flatiron Bldg., New York, and Land Title Bldg., Philadelphia, Pa., of pamphlets entitled "Cement Sidewalk Paving Suggestions as to Method of Construction," "Cracking or Hair Cracks on Concrete Surfaces," "Economic Selection and Proportion of Aggregates for Concrete" and "An Artistic Concrete Residence." These pamphlets were prepared by Albert Moyer, associate American Society Civil Engineers, and they will be found of great assistance and value to those engaged in the design or construction of concrete structures. They will be sent without charge.

#### Ready-Built Modern Houses.

Better homes at a lower cost, by the elimination of all waste, a saving on material and labor, and the use of other economical features entering into their construction, is the claim advanced by the Modern House Manufacturing Co., Farmers' Bank Bldg., Pittsburgh, Pa. According to the process employed by this company, it states that houses may be erected at a cost of from 25 to 40 per cent. lower than it is possible to erect them in any other way. This is accomplished, it states, by building houses by machinery and in large numbers, and its ability to effect a saving in every feature of its erection, from the purchase of the timber land to the shipment of complete houses. These savings include the architects' and designers' fees, the employment of machinery where hand labor is employed in ordinary construction, and other economic processes. It delivers the house selected by the purchaser, shipped to the nearest railroad siding in one car, furnishing complete directions for erecting it. A catalogue which the company has recently issued contains interesting descriptive data relative to its methods, together with a large number of designs and specifications, with photographic views in colors of houses which it furnishes.

#### Keystone Drills for Drilling Blast Holes.

In the employment of Keystone cable drills for blast-hole drilling when a heavy body of earth or rock is to be disintegrated the method advised is to drill large holes at fixed and particular distances apart over the whole area to be blasted. The Keystone drilling tool consists of a rope socket about 2½ feet long, a solid steel beam about 20 feet long and a high-class steel drill bit about 3½ feet in length, the whole weighing approximately 1200 pounds. Ordinarily for the best and speediest service the drill bit should be dressed to not less than 5 inches nor more than 5½ inches. The Keystone cable drill is manufactured by the Keystone Driller Co., Beaver Falls, Pa., and is illustrated and described in the second edition of catalogue No. 4 for 1909. This catalogue is attractively bound and printed, the cover being durable and easy to handle, while the pages are of a smooth finish, producing clear type and illustrations. The cable drill to which it relates is adapted to blast-hole drilling in cement quarries, crushed-stone quarries, railroad and canal cuts, copper and placer gold mines and excavations of various kinds. Among the products of the Keystone Driller Co. are portable well-drilling and prospecting machines, Downie deep-well pumps, etc.

#### The Bleichert Aerial Tramways.

The Bleichert system of aerial tramways carries the material in receptacles suspended from carriages on stationary track cables of special construction, supported at varying elevations above the ground. The carriers move in a continuous circuit at definite intervals, determined by the individual loads and the amount of material to be transported in a given time and at distances apart varying in accordance with the speed. The loaded carriers travel along a line of cable graduated in size to the weight it has to support, and the empties return along a lighter line of cables parallel with the loaded line. Motion is imparted to the carriers by means of a comparatively light endless wire rope known as the traction rope, to which the carriers are gripped. The Bleichert system is adapted to the trans-

portation of ores, coal, crushed stone, slate, clay, sand and all kinds of raw material, as well as to the conveyance of fruits, cereals, cordwood, sawmill products, etc. It is illustrated and comprehensively described in a catalogue which has been issued by the Trenton Iron Co., Trenton, N. J., which is the sole manufacturer and licensee in America under the Bleichert patents.

#### Diamond Grinding and Polishing Machinery.

While grinding and polishing machines are no longer regarded as mere substitutes for hand filing and hand buffing purposes, yet good tool grinders and good polishers are essential to a good shop. Among the companies which manufacture and carry in stock a large line of tools of this character is the Diamond Machine Co. of Providence, R. I. This company has recently issued Catalogue D, which illustrates and describes its grinding and polishing tools, some of its newer products including disc and ring grinders for nuts, dies, steam-tight valves and flat metal pieces; shop face grinders for heavier work, especially cast iron, and motor-driven traveling head face grinders for the operation of structural ironworkers, bridge builders, safemakers and manufacturers of kindred products.

#### Baltimore's Municipal Dock Improvements.

During the great fire of 1904 a portion of Baltimore's waterfront in the upper basin was destroyed by fire. The city purchased this property, voted a dock loan, and immediately started the construction of six modern piers and docks. The first three of these, which are of timber and stone construction, are in service. The latter three are being constructed of reinforced concrete and represent the modern ideas in pier construction. The reinforced concrete is being done by the Raymond Concrete Pile Co., New York, and in order to acquaint others with the character and scope of this work the company has published in pamphlet form a most interesting and valuable illustrated article covering it. Much of the material for this pamphlet was taken from articles previously published in the Manufacturers' Record and the Engineering Record. These have been elaborated and a number of new photographs of the work added, all of which tends to give municipal officials and others interested in this important question of dock improvements a comprehensive idea of the financial and engineering features of the work, also to point out the decided advantages of constructing docks of reinforced concrete, which not only has long life, but also successfully resists the teredo.

#### CONTRACTION IN SPOT SALES.

But No Weakening in the Birmingham Market.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., November 8.

There has been a telling contraction in the spot-iron market the past week, and inquiries for delivery into next year are off considerably. This, however, has not weakened the market. There were several sales of small lots, aggregating some thousand tons. The several interests, when approached on the real market situation, substantially stated that while there could not be said an active market prevails, there was no disposition to lower the base price of \$15 per ton f. o. b. cars at the furnace. One large manufacturer of basic stated that a good-size inquiry for that metal came to hand during the week, but that so far an actual sale had not materialized. It is not denied that there is some resale iron being offered at figures slightly under \$15, but only in small lots and for prompt shipment. The movement of stock continues to hold up well, and in the face of the high-water production figures for the month of October, none of the companies are uncomfortably situated for yard room. At this particular period the conditions prevailing in the South as to low-grade iron have accentuated the fact of the material reduced production of that grade of iron as compared with former years. Those well informed attribute such conditions to the up-to-date methods employed in Southern furnace practice.

Charcoal pig-iron is firm at \$22 per ton at the furnace, and the movement of same from the yards is good.

One of the local cast-iron pipe manufacturers here, when questioned as to the market and other conditions, reported that inquiries were more plentiful than for some weeks past, and that business was good; also that stocks were being reduced. The different plants are running full time. Good business from the Northwest is reported to be under consideration, and several orders from that section in hand. The local business in the South also shows some improvement. There has been no recent advance in price, but the following figures are quoted as firm, with at least \$1 advance shortly, viz.: Four-inch, \$25; average of \$22 per ton f. o. b. cars foundry here; fittings, \$60 per ton; \$1 per ton advance over above prices is asked for gas-pipe.

There has been a falling off in demand for scrap of all kinds, and in some instances dealers have been forced to fall under the recently quoted high prices in order to place their product. Transactions the past week have been small. The lull, of course, is in keeping with the pig-iron situation. Dealers' prices as quoted are substantially as follows per gross ton f. o. b. cars here:

Old iron axles, \$20.50 to \$21.  
Old iron rails, \$16 to \$16.50.  
Old steel axles, \$18 to \$18.50.  
No. 1 railroad wrought, \$14 to \$14.50.  
No. 2 railroad wrought, \$12 to \$12.50.  
Dealers' mixed wrought, \$11 to \$11.50.  
Old steel rails, \$12.50 to \$13.  
No. 1 machinery, \$12.50 to \$13.  
No. 1 steel, \$12.50 to \$13.  
Old standard car wheels, \$14 to \$14.50.  
Light castings, stove plates, \$10 to \$10.50.  
Cast borings, \$6.50 to \$7.

An interesting feature of the enormous melt of iron the past month in Alabama, something over 170,000 tons, is the splendid record made by the Tennessee Coal, Iron & Railroad Co., which reflects great credit on the management. A comparison of the melt of October this year with October, 1899, best previous record made by the company (which months included five furnace stacks that are now idle), reveals an increase of some 3800 tons; 69,350 tons were produced in October, 1899, and 73,158 tons in October, 1909; in fact, the month of October this year was a record-breaker for this company in nearly every department.

There has been a decided improvement in the coal market, both domestic and steam. The demand is reported exceptionally healthy, and some advance has been recorded. There have been several conferences held recently by the coal operators of the district, and the tendency has been toward an unsolicited advance to the miners of two and one-half cents per ton. This goes far in furthering the agreeable relations between miners and operators, and is considered a wise move. While it has not been officially announced, it is generally understood that coke oven and other labor will be advanced.

## FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,  
Baltimore, Md., November 10.

In the Baltimore stock market during the past week the advance continued in Atlantic Coast Line certificates, but they reacted toward the end of the period. Consolidation Coal stock also advanced considerably, but held the gain.

In the trading United Railways common sold at 13; do. trust certificates, 13; do. incomes, 58 to 57½; do. funding 5s, 84½ to 84; do. do. scrip, 84½; United 4s, 86½ to 85½; United Light & Power 4½s, 92½; Consolidated Gas, Electric Light & Power preferred, 82 to 82½; Consolidated Gas 6s, 100%; do. 4½s, 93 to 94; Seaboard Air Line common, 15; do. preferred, 25; Seaboard Company common, 18; do. second preferred, 36; Seaboard 4s, certificates, 79½ to 80; do. three-year 5s, 98½ to 99; do. 10-year 5s, 98½ to 99½; do. adjustment 5s, 69 to 69½; Cotton Duck 5s, 77 to 75½; G.-B.-S. Brewing common, 2; do. incomes, 13½ to 12¾; do. 1sts, 44½ to 40½, reacting to 42½.

Bank stock sold as follows: Citizens', 39; Farmers and Merchants', 48; Exchange, 156½; Howard, 13½. Maryland Casualty sold at 120; Fidelity & Deposit, 155 to 156; Mercantile Trust, 150½; United States Fidelity, 140.

Other securities were traded in thus: Consolidation Coal, 107½ to 115; Atlantic Coast Line new 4s, certificates, 103½ to 107½, reacting to 102½; Atlantic Coast Line of Connecticut 5-20s, 93 to 93½; Georgia, Carolina & Northern 5s, 104½ to 104½; Maryland Electric 5s, 96½ to 97½; West Virginia Central 6s, 101½ to 101½; Virginia deferred Brown Bros. certificates, 51 to 60; Arkansas, Oklahoma & Western, 7¾; Atlantic Coast Line of Connecticut stock, 335 to 340; Northern Central Railway stock, 105½ to 106; Houston Oil common, 8¼ to 8½; do. preferred, 40 to 40½; Charleston & Western Carolina 5s, 107½; Macon, Dublin & Savannah 5s, 95½; Petersburg R. 119; Atlantic Coast Line stock, 137½; Baltimore City Passenger 5s, 100%; Norfolk Railway & Light 5s, 97½; Georgia Southern & Florida first preferred, 93½; Anacostia & Potomac 5s, guaranteed, 103½; Fairmont & Clarksburg Traction 5s, 96; Lake Roland Elevated 5s, 112½; Maryland & Pennsylvania 4s, 91; Metropolitan (Washington) 5s, 108½; Wilmington & Weldon 5s, 112; Atlantic Coast Line of Connecticut 5s, certificates, 107; Coal & Iron Railway 5s, 102½; Baltimore Electric 5s, stamped, 91; Macon Railway & Light 5s, 94½; Maryland 3s, 1914, 95½; Baltimore City 4s, 1925, 103; Maryland, Delaware & Virginia preferred, 14; Baltimore Brick preferred, 27; George's Creek Coal & Iron, 95; Merchants & Miners' Transportation Co., voting trust, 85; Atlantic Coast Line Consolidated 4s, 95 to 95½; Georgia & Alabama Consolidated 5s, 104½ to 104½; Georgia Southern & Florida 5s, 109½; Virginia new 3s, 90½; Fairmont Coal 1st 5s, 96 to 96½; Detroit United 4½s, 82½; Alabama Consolidated Coal & Iron 5s, 84½; Virginia Century, 92½; Richmond & Danville debenture 5s, 106.

### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended  
November 10, 1909.

Railroad Stocks.	Par.	Bid.	Asked.
Atlanta & Charlotte.....	100	138	...
Atlantic Coast.....	100	340	350
Georgia Sou. & Fla.....	100	30	40
Georgia Sou. & Fla. 1st Pfd.....	100	93	94½
Georgia Sou. & Fla. 2d Pfd.....	100	73	...
Seaboard Company Common.....	100	...	18½
Seaboard Company 2d Pfd.....	100	25	...
United Rys. & Elec. Co.....	50	12½	13

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank.....	10	39	...
Drovers & Mech. Nat. Bank.....	100	230	...
First National Bank.....	100	135	140
Maryland National Bank.....	20	21	...
Merchants' National Bank.....	100	166½	...
National Bank of Baltimore.....	100	126	...
National Bank of Commerce.....	15	29	29½
National Exchange Bank.....	100	156	...
National Howard Bank.....	10	13½	...
National Marine Bank.....	30	40	...
National Mechanics' Bank.....	10	27½	30
National Union Bank of Md.....	10	12½	...
Old Town Bank.....	100	135	...
Second National Bank.....	100	127	...
Third National Bank.....	100	130	...
Western National Bank.....	20	37	...

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Balto. Trust & Guarantee.....	100	...	300
Fidelity & Deposit.....	50	...	156
Safe Deposit & Trust.....	100	...	490
U. S. Fidelity & Guaranty.....	100	...	140

### Miscellaneous Stocks.

Ala. Con. Coal & Iron.....	100	37	...
Ala. Con. Coal & Iron Pfd.....	100	80	...
Con. Cotton Duck Common.....	50	5½	...
Con. Cotton Duck Pfd.....	50	16½	21
Con. Gas, Elec. Lt. & P. Com.....	100	33	35½
Con. Gas, Elec. Lt. & P. Pfd.....	100	82	82½
Consolidation Coal.....	100	114	115
G.-B.-S. Brewing Co.....	100	15	...
Georges Creek Coal.....	100	95	96
Mer. & Miners' Trans. Co.....	100	82	86

### Railroad Bonds.

Atlanta & Charlotte Ext. 4½s.....	99½	...	...
Atlantic Coast Line 1st 4s, 1952.....	95½	95½	...
Atlantic Coast Line new 4s, Cfs.....	102½	103	...
At. Coast Line Com. 4s, Cfs.....	93½	93½	...
Atlan. Coast Line (Conn.) 4s, Cfs.....	87	...	...
Balto. & Harrisburg 5s, 1936.....	105½	...	...
Balto. & Harrisburg Ext. 5s, 1938.....	102½	103	...
Carolina Central 4s, 1949.....	92	...	...
Charleston & West. Car. 5s.....	95	...	109
Coal & Coke Railway 5s.....	95	...	...
Coal & Iron Railway 5s, 1920.....	101½	102½	...
Florida Southern 4s, 1940.....	92½	...	...
Georgia & Alabama 5s, 1943.....	104½	104½	...
Georgia, Car. & North. 1st 5s, 1929.....	104½	104½	...
Georgia Pacific 1st 6s, 1922.....	112	115	...
Georgia South. & Fla. 1st 5s, 1945.....	108	...	...
Maryland & Penna. 4s, 1951.....	91	...	...
Macon, Dublin & Savannah 5s.....	95½	96	...
Piedmont & Cum. 1st 5s, 1911.....	100	...	...
Potomac Valley 1st 5s, 1941.....	105	...	...
Raleigh & Augusta 1st 6s, 1926.....	107	...	...
Richmond & Dan. Gold 6s, 1915.....	106	...	...
Savannah, Fla. & West. 5s, 1934.....	110	...	...
Seaboard Air Line 5s, 10-year, 1911.....	99	99½	...
Seaboard Air Line 5s, 3-year.....	98½	98½	...
Seaboard & Roanoke 6s, 1916.....	100	...	...
South Bound 5s, 1911.....	100	105½	...
Washington Terminal 4s.....	89½	89½	...
Western Maryland 4s, 1952.....	82½	84	...
Western N. C. Con. 6s, 1914.....	106	107	...
West Va. Cent. 1st 6s, 1911.....	101	101½	...
Wilmington, Col. & Aug. 6s, 1910.....	100½	...	...
Wilmington & Weldon Gold 5s, 1935.....	111½	...	...

### Street Railway Bonds.

Augusta Ry. & Elec. 5s, 1940.....	99½	...	...
Balto. City Pass 5s, 1911.....	100	101	...
Balto. Sp. Pt. & C. 4½s.....	92	93	...
City & Suburban 5s (Wash.), 1943.....	103	...	...
Knoxville Traction 1st 5s, 1928.....	104	106	...
Lake Roland Elevated 5s, 1942.....	112½	...	...
Macon Ry. & Lt. 1st Con. 5s, 1953.....	94½	...	...
Maryland Electric Railways 5s.....	96½	97	...
Memphis Street Railway 5s.....	98½	...	...
Metropolitan 5s (Wash.), 1925.....	108	110	...
Metrop. News & Old Pt. 5s, 1938.....	92½	95	...
Norfolk & Portsmouth Trac. 5s.....	82½	83	...
Norfolk Railway & Light 5s.....	97½	...	...
Norfolk Street Railway 5s, 1944.....	105	106½	...
United Railways 1st 4s, 1949.....	85½	85½	...
United Railways Income 4s, 1949.....	57½	58	...
United Railways Funding 5s.....	84	...	...

### Miscellaneous Bonds.

Ala. Con. Coal & Iron 5s.....	85	...	...
Atlanta Gas 1st 5s, 1947.....	100	...	...
Baltimore Electric 6s.....	89½	91	...
Consolidated Gas 6s, 1910.....	100½	100½	...
Consolidated Gas 5s, 1939.....	110½	...	...
Consolidated Gas 4½s.....	93	93½	...
Consolidation Coal 1st 4½s.....	101	...	...
Con. Gas, Elec. Lt. & P. 4½s.....	80	83½	...
G.-B.-S. Brewing 1st 4s.....	42	42½	...
G.-B.-S. Brewing Income 4s.....	10	...	...
Mt. Vernon-Woodbury C. Duck 5s.....	75	76	...
United Elec. Lt. & P. 4½s.....	92½	...	...

### SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh Mac-  
Rae & Co., Wilmington, N. C., for  
Week Ending November 8.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	70	71
Aiken Mfg. Co. (S. C.).....	85	...
American Spinning Co. (S. C.).....	155	...
Anderson Cotton Mills (S. C.).....	56	60
Arkwright Cotton Mills (S. C.).....	100½	105
Augusta Factory (Ga.).....	65	70
Avondale Mills (N. C.).....	115	125
Belton Mills (S. C.).....	120	...
Bibb Mfg. Co. (Ga.).....	114	...
Brandon Mills (S. C.).....	97	99
Cabarrus Cotton Mills (N. C.).....	125	145
Chadwick-Hoskins Mfg. Co. (N. C.).....	100	...
Chadwick-Hoskins Mfg. Co. (N. C.) Pfd.....	102	107
Chiquola Mfg. Co. (S. C.).....	165	167
Clifton Mfg. Co. (S. C.).....	106	...
Clifton Mfg. Co. (S. C.) Pfd.....	99	101
Clinton Cotton Mills (S. C.).....	120	130
Columbus Mfg. Co. (Ga.).....	93	98
Courtenay Mfg. Co. (S. C.).....	97	100
Dallas Mfg. Co. (Ala.).....	97	106
Darlington Mfg. Co. (S. C.).....	74	80
Drayton Mfg. Co. (Ala.).....	100	...
Eagle & Phenix Mills (Ga.).....	135	...
Eastley Cotton Mills (S. C.).....	165	170
Enoree Mfg. Co. (S. C.).....	52	62
Enoree Mfg. Co. (S. C.) Pfd.....	95	100
Enterprise Mfg. Co. (Ga.).....	80	90
Exposition Cotton Mills (Ga.).....	240	...
Gaffney Mfg. Co. (S. C.).....	75	81
Gainesville Cotton Mills (Ga.).....	68	74
Granby Cot. Mills (S. C.) 1st Pfd.....	60	60
Graniteville Mfg. Co. (S. C.).....	160	165
Greenwood Cotton Mills (S. C.).....	58½	68
Grendel Mills (S. C.).....	112	115
Henrietta Mills (N. C.).....	115	...
King Mfg. Co., John P. (Ga.).....	95	100
Lancaster Cotton Mills (S. C.).....	125	146
Lancaster Cot. Mills (S. C.) Pfd.....	97	100
Langley Mfg. Co. (S. C.).....	96	100
Laurens Cotton Mills (S. C.).....	120	135
Limestone Mills (S. C.).....	150	175
Lockhart Mills (S. C.).....	78	90
Lockhart Mills Pfd.....	99	100
Loray Mills (N. C.) Pfd.....	96	97½
Marlboro Cotton Mills (S. C.).....	83	84½
Mayo Mills (N. C.).....	165	185
Mills Mfg. Co. (S. C.).....	94	100
Mills Mfg. Co. (S. C.) Pfd.....	109	125
Monaghan Mills (S. C.).....	123	125
Monarch Cotton Mills (S. C.).....	109	112
Newberry Cotton Mills (S. C.).....	120	140
Norris Cotton Mills (S. C.).....	122	125
Olympia Cot. Mills (S. C.) 1st Pfd.....	78	87½
Orangeburg Mfg. Co. (S. C.) Pfd.....	80	95
Orr Cotton Mills (S. C.).....	100	101
Pacolet Mfg. Co. (S. C.).....	101	101
Pacolet Mfg. Co. 1st Pfd.....	97	102
Pelzer Mfg. Co. (S. C.).....	150	160
Piedmont Mfg. Co. (S. C.).....	173	177
Poe Mfg. Co. (S. C.).....	160	165
Richland Cot. Mills (S. C.) 1st Pfd.....	45	...
Raleigh Cotton Mills (N. C.).....	100	106
Roanoke Mills (N. C.).....	153	165
Saxon Mills (S. C.).....	127	...

Sibley Mfg. Co. (Ga.).....	62½	65
Spartan Mills (S. C.).....	130	140
Springsteen Mills (S. C.).....	100	...
Tucapau Mills (S. C.).....	250	...
Trion Mfg. Co. (Ga.) 1st Pfd.....	72	73
Union-Buffalo Mills (S. C.).....	140	...
Victor Mfg. Co. (S. C.).....	135	...
Warren Mfg. Co. (S. C.).....	93½	95
Warren Mfg. Co. (S. C.) Pfd.....	106	...
Washington Mills (Va.).....	28	...
Washington Mills (Va.) Pfd.....	106	108
Whitney Mfg. Co. (S. C.).....	125	...
Williamston Mills (S. C.).....	115	...
Wiscasset Mills (S. C.).....	120	...
Woodruff Cotton Mills (S. C.).....	140	155
Woodside Cotton Mills (S. C.).....	97	100
Woodside Cot. Mills (S. C.) Pfd.....	95	98

Quotations Furnished by William S.  
Glenn, Broker, Spartanburg, S. C.,  
for Week Ending November 8.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	76	75
Aiken Mfg. Co. (S. C.).....	85	85
American Spinning Co. (S. C.).....	155	155
Arcadia Mills (S. C.).....	96	96
Arkwright Cotton Mills (S. C.).....	100	105
Augusta Factory (Ga.).....	65	70
Avondale Mills (Ala.).....	116	116
Belton Mills (S. C.).....	120	120
Belt Mills (S. C.).....	30	37
Cannon Mfg. Co. (N. C.).....	136	136
Cabarrus Cotton Mills (N. C.).....	130	136
Chiquola Mfg. Co. (S. C.).....	155	155
Clifton Mfg. Co. (S. C.).....	105	110
Clinton Cotton Mills (S. C.).....	120	120
Columbus Mfg. Co. (Ga.).....	93	100
Courtenay Mfg. Co. (S. C.).....	95	95
Dallas Mfg. Co. (Ala.).....	99	99
Darlington Mfg. Co. (S. C.).....	74	74
D. E. Converse Co. (S. C.).....	100	105
Drayton Mills (S. C.).....	95	100
Eagle & Phenix Mills (Ga.).....	117	117
Eastley Cotton Mills (S. C.).....	158	162
Enoree Mfg. Co. (S. C.).....	52	63
Enoree Mfg. Co. (S. C.) Pfd.....	90	100
Enterprise Mfg. Co. (Ga.).....	75	75
Exposition Cotton Mills (Ga.).....	196	200
Gainesville Cotton Mills (Ga.).....	60	65
Glenwood Cotton Mills (S. C.).....	145	145
Gluck Mills (S. C.).....	92	96
Graniteville Mfg. Co. (S. C.).....	155	165
Grendel Mills (S. C.).....	110	115
Hartsville Cotton Mill (S. C.).....	150	150
Henrietta Mills (N. C.).....	150	165
Inman Mills (S. C.).....	105	110
Lancaster Cotton Mills (S. C.).....	118	125
Lancaster Cot. Mills (S. C.) Pfd.....	97	97
Langley Mfg. Co. (S. C.).....	95	100
Laurens Mills (S. C.).....	127	127
Limestone Mills (S. C.).....	150	150
Lockhart Mills (S. C.).....	60	60
Lockhart Mills (S. C.) Pfd.....	98	98
Loray Cotton Mills (N. C.) Pfd.....	92	96
Marlboro Cotton Mills (S. C.).....	83	88
Mills Mfg. Co. (S. C.).....	92	98
Molloy Mfg. Co. (S. C.).....	106	106
Monaghan Mills (S. C.).....	117	122
Monarch Cotton Mills (S. C.).....	104	104
Newberry Cotton Mills (S. C.).....	120	120
Ninety-Six Cotton Mills (S. C.).....	135	135
Norris Cotton Mills (S. C.).....	117	117
Ort Cotton Mills (S. C.).....	100	100
Paeolet Mfg. Co. (S. C.).....	98	100
Pelzer Mfg. Co. (S. C.).....	95	106
Piedmont Mfg. Co. (S. C.).....	175	175
Poe Mfg. Co. (F. W. S. C.).....	169	165
Saxon Mills (S. C.).....	125	125
Sibley Mfg. Co. (Ga.).....	60	65
Spartan Mills (S. C.).....	129	129
Spurlock Mills (S. C.).....	250	250
Union-Buffalo Mills (S. C.).....	77	80
Union-Buffalo (S. C.) 2d Pfd.....	20	25
Victor Mfg. Co. (S. C.).....	122	126
Warren Mfg. Co. (S. C.).....	92	96
Warren Mfg. Co. (S. C.) Pfd.....	108	108
Washington Mills (Va.).....	20	20
Whitney Mfg. Co. (S. C.).....	120	120
Wiscasset Mills (N. C.).....	135	135
Woodville Mills (S. C.).....	140	152
Woodside Cotton Mills (S. C.).....	94	94
Watts Mills (S. C.).....	84	90
Williamston Mills (S. C.).....	117	117



**Southern Investments**

100,000 6 per cent. Industrial Bonds.  
100,000 7 per cent. Preferred Stock.  
100,000 of Common Stock.  
In strongest mill corporations.  
Also 100,000 first mortgage real estate loans.  
F. C. ABBOTT & CO.,  
Charlotte, N. C.

Established 1835.

**The Merchants National Bank**

South and Water Sts., BALTIMORE, MD.  
DOUGLAS H. THOMAS, President.  
W. M. ISGLE, Vice-President and Cashier.  
J. C. WANDS, Asst. Cashier.  
JOHN B. H. DUNK, Asst. Cashier.  
Capital, \$1,500,000  
Surplus and Profits, \$900,000  
Deposits \$12,000,000  
Accounts of Banks, Bankers, Corporations and Individuals solicited. We invite correspondence.

**JOHN NUVEEN & CO.**

1st Nat. Bank Bldg., CHICAGO  
We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.  
Write us if you have bonds for sale.

**THE FIRST NATIONAL BANK**

OF KEY WEST, FLA.  
United States Depository and Disbursing Agent.  
Capital, \$100,000  
Surplus and Undivided Profits - 40,000  
A general banking business transacted.  
Special attention given to collections.

**DELAWARE TRUST CO.**

WILMINGTON, DEL.  
EDWARD T. CANBY, President.  
J. ERNEST SMITH, General Counsel and Vice-President.  
HARRY W. DAVIS, Secretary.

Fully Equipped Department for the Organization of Corporations under advice of Counsel, and for the Registration of Corporations as required by the Delaware Law.  
Represents over 500 Domestic and Foreign Corporations.  
The Delaware Corporation Law is Broad, Liberal, Safe and Stable.  
Granting and annual taxes low.

**Hugh MacRae & Co.**

BANKERS  
MISCELLANEOUS SOUTHERN SECURITIES  
COTTON MILL STOCKS  
WILMINGTON, N. C.  
NEW YORK CITY 149 Broadway

**Southern Steam Railroad Securities**

DEALT IN  
F. J. LISMAN & CO.  
Specialists in Steam R. R. Securities  
Members New York Stock Exchange,  
30 Broad Street NEW YORK  
404 Connecticut Mutual Bldg., Hartford.  
Land Title & Trust Bldg., Philadelphia.

CROSS CREEK COAL COMPANY 8% Gold bonds, total issue \$250,000. All have been disposed of to investors and bankers in different parts of the country, including Saco, Maine; Boston, Mass.; Rochester, N. Y.; Westfield, Olean, Fredonia and Buffalo, N. Y.; Franklin, Coudersport, Pittsburgh, Smethport, Shamokin and Port Allegany, Pa.; Columbus, Dayton and Springfield, Ohio; Northfork, Welch and Bluefield, W. Va.; Roanoke, Va.; Nashville, Knoxville, Jasper, Chattanooga and South Pittsburg, Tenn.; Atlanta, Ga.; Lowell, Mass.; East Orange, N. J., and Washington, D. C., until now there are but \$30,000 of them left. These bonds are first lien on 7000 acres of the best coal properties in Tennessee, and \$75,000 of this money is being spent on an up-to-date coal works with a capacity of about 1000 tons a day. Particulars will be furnished from the office, 1006 Mutual Life Building, Buffalo, N. Y. P. S.—A bonus of preferred stock will be given with the bonds.

**GEO. M. CLARK**

Auditor and Public Accountant  
Room 315 James Building  
CHATTANOOGA, TENN.

**INVESTMENT SECURITIES**

Southern Stocks and Bonds  
Municipal and Corporation  
Cotton Mill Stock a Specialty  
WM. S. GLENN - Broker - SPARTANBURG, S. C.

**INTERNATIONAL TRUST CO.**

OF MARYLAND

BALTIMORE, MD.

Capital and Surplus, \$2,500,000

**MAKES A SPECIALTY OF SOUTHERN BUSINESS**

THIS COMPANY acts as Executor, Administrator, Guardian and Trustee. Registrar Transfer and Fiscal Agent for Railroads, Corporations and Financial Concerns, States, Cities and Towns, and as Depository under plans of reorganization.

**OFFICERS**

DOUGLAS H. GORDON, President.  
SUMMERFIELD BALDWIN, Vice-President.  
SAMUEL C. ROWLAND, Vice-President.  
CHAS. D. FENHAGEN, Secretary and Treasurer.  
WALTER D. FOCKE, Asst. Secy. and Asst. Treas.

**EXECUTIVE COMMITTEE**

ISAAC H. DIXON, Chairman.  
SUMMERFIELD BALDWIN,  
RICHARD H. EDMONDS,  
SAMUEL C. ROWLAND,  
WM. C. SEDDON,  
DOUGLAS H. GORDON,  
STEVENSON A. WILLIAMS.

**A Progressive and Conservative Trust and Banking Institution****THE BALTIMORE TRUST & GUARANTEE COMPANY**

BALTIMORE, MD.

Capital, \$800,000  
Surplus, \$2,100,000

THOS. H. BOWLES, President  
Acts as Executor, Administrator, Trustee, Receiver for Firms, Individuals or Corporations.

Receives Deposits subject to Check, and allows Liberal Rates of Interest thereon.

**Bank of Richmond**

Capital and Surplus, \$1,500,000  
RICHMOND, VA.

JOHN SKELTON WILLIAMS, President.  
FRED'K E. NOLTING, 1st Vice-President.  
T. K. SANDS, 2d Vice-President and Cashier.  
H. A. WILLIAMS, Assistant Cashier.  
L. D. CRENSHAW, Jr., Trust Officer.

In aiding the development of legitimate business enterprises, this bank believes that it performs a required duty, and to this end offers the services of a live, progressive bank, conservatively managed.

**JOHN W. DICKEY**

SOUTHERN SECURITIES

AUGUSTA, GEORGIA

**We Make a Specialty of Buying Southern Municipal Bonds**

WE PAY THE HIGHEST MARKET PRICES  
Correspondence Solicited.  
A. J. HOOD & CO.  
Pencoboc Bldg. DETROIT, MICH

**MANUFACTURERS and JOBBERS**

Frequently find it necessary to have BANKING FACILITIES in addition to those offered by local banks.

FIRST NATIONAL BANK OF RICHMOND, VA.  
With assets of nine million dollars, offers just the additional facilities required.

Jno. B. Purcell, President.  
Jno. M. Miller, Jr., Vice-Pres. and Cashier.

**The Delaware Fidelity Trust Co.**

Home Office—Dover, Delaware

Is especially interested in the development of the South and will assist substantial enterprises requiring additional capital.

Announces the opening of a branch office in the city of Philadelphia, where arrangements may be made for the organization and consolidation of corporations, registration of stock, and for acting as trustee in bond issues.

Correspondence solicited.

THE DELAWARE FIDELITY TRUST CO.  
1415 Arch Street, Philadelphia, Pa.

**The National Exchange Bank**

OF BALTIMORE, MD.

Hopkins Place, German and Liberty Sts.  
Capital, \$1,000,000  
July 15, 1906, Surplus and Profits, \$671,631.60  
OFFICERS:

WALDO NEWCOMER, President.  
SUMMERFIELD BALDWIN, Vice-Pres.  
R. VINTON LANSDALE, Cashier.  
WM. J. DELCHER, Asst. Cashier.  
O. G. MORGAN, Asst. Cashier.  
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

**Our Bond Department**

is prepared to furnish desirable Corporation, Timber, Irrigation and Municipal Bonds which yield substantial rates of interest.  
Write for particulars.

**Interstate Trust & Banking Co.**

NEW ORLEANS, LOUISIANA

Capital and Surplus over One Million Dollars

**Baltimore Office Supply Co.**

106 S. Eutaw St., Baltimore, Md.

MANUFACTURERS OF  
Stamps, Stencils, Seals, Metal Signs, etc.  
Office and Bank Supplies.  
Write for prices.

**BANK FIXTURES SHOW CASES STORE EQUIPMENT COMMERCIAL FURNITURE**

We are manufacturers and specialize on quality. Ask for references. Information promptly given.  
QUINCY SHOW CASE WORKS, - Quincy, Ill.

**GO SOUTH**

Business Opportunities, Investment Securities, Real Estate, Timber, Mines, Industrial Properties and Mortgages in Southern States and Mexico, correspond with

SOUTHERN STATES DEVELOPMENT CO.  
GEO. B. EDWARDS, President, New York, N. Y.  
Office, Tribune Bldg., Park Row and Nassau St.  
Connections in the Principal Cities of Europe.

**SURETY BONDS****Fidelity & Deposit Co.**

OF MARYLAND

Home Office, BALTIMORE, MD.

Assets Over \$5,000,000

Pioneer Surety Co. of the South,  
Becomes Surety on bonds of every description.

AGENTS IN ALL PRINCIPAL CITIES

HARRY NICODEMUS, Sec'y and Treas., EDWIN WARFIELD, President

**"AMERICAN"****STRENGTH in ROPE is QUALITY**

Recent government tests show

"AMERICAN" PURE MANILA ROPE to be from 10% to 25% stronger than the standards set by the United States Government for manila ropes of various sizes.



"AMERICAN" ROPE is most economical because it gives the longest service and the greatest value for the money invested.

Specify "AMERICAN" on your orders and turn rope expense into rope economy.

WRITE for our booklet "ROPE," with samples and prices.

**THE AMERICAN MFG. CO.**

MANILA . . SISAL . . JUTE CORDAGE  
65 WALL STREET NEW YORK, N. Y.

**TRANSMISSION ROPE**

charter of the People's Savings Trust & Banking Co. Joseph Collins is president.

La., New Orleans.—The Hart Loan & Trust Co., capital \$5000, has been chartered by S. L. Hart, Mike S. Hart and Charles Mendelson.

Mo., Oak Hill.—Chartered: The Bank of Oak Hill; capital \$10,000; directors, Joseph M. Taylor, J. R. Briscoe, J. A. Simpson, Jas. Ferris, J. F. Ferris, H. E. Allison and E. Helm.

Mo., Washington.—The Franklin Bank is reported organized with A. T. Schultz, president; F. W. Hawley, vice-president, and C. M. Ellis, cashier.

N. C., Asheville.—The People's National Bank, it is reported, has begun business. John H. Carter is president, and U. G. Slaton, vice-president.

N. C., Colerain.—Chartered: The Bank of Colerain; capital \$10,000; Dr. L. A. Nowell, president; J. H. Jatnigan and E. S. Askew, vice-presidents; W. M. Sitterson, cashier.

N. C., Lumberton.—The Farmers' and Merchants Bank of Robeson has begun business. T. A. McNeill, president, and T. C. Evans, cashier.

N. C., Whiteville.—The Whiteville Insurance & Realty Co., authorized capital \$25,000, has been incorporated by R. C. Powell, J. L. Powell and F. L. Ford.

N. C., Winston-Salem.—The Winston Investment Co., authorized capital \$50,000, has elected officers thus: President, F. A. Moore; vice-president, George F. Dwire; secretary and treasurer, J. J. Rogers; attorney, A. F. Sams.

Okla., Cestos.—Chartered: The Citizens' Bank; capital \$10,000. Incorporators, C. H. Cofer, F. A. Carmony, V. Cuberly and W. F. Cuberly, all of Cestos, and W. H. Hayes of Richmond.

Okla., Marble City.—The Citizens' State Bank chartered; capital \$10,000; William Lawrence, president; G. B. Dodson, vice-president, and George J. Brunk, cashier.

Okla., Oklahoma City.—Official: The Oklahoma Bankers' Trust Co. chartered; capital \$500,000; surplus \$3000. Directors, N. T. Hawkins, vice-president; Jeter Marse, acting secretary; Jasper Sipes, R. L. Putnam, R. A. Kleinschmidt and S. A. Layton.

S. C., Charleston.—The Metropolitan Building and Loan Association is reported incorporated by R. G. Rhett, T. T. Hyde, M. Rutledge Rivers and H. L. Erckmann.

Tenn., Big Sandy.—The Farmers' Bank is reported to have begun business; capital \$7500. Directors: President, E. H. Dowdy; vice-president, D. J. Cooper; J. F. Dowdy, John Askew, Sam Doty, J. B. Cheatham, J. B. Cox, J. W. Odum, Ingram Hargis, T. A. Rushing, E. G. Clement and J. T. Sparks. James Lockhart is cashier.

Tenn., Elbridge.—A bank capitalized at \$15,000 is reported organized with W. T. Call, president; Dr. J. L. Wright, vice-president; N. P. Manley, cashier; directors, L. P. Hailley, R. W. King, Talmage King and W. A. Wlar.

Tenn., Erwin.—The Bank of Erwin is reported to have made application for a charter; capital \$25,000; incorporators, N. T. Tucker, W. B. McNabb, Gull Barber, R. H. Bradshaw, W. A. Roberts, J. D. S. Ryburn and J. F. Toney.

Tenn., Humboldt.—Articles of incorporation for the Farmers and Merchants' Bank have been filed by J. T. Warren, S. F. Forsythe, J. H. Hamilton, Charlie Cresop, W. A. Cresop and E. T. Hale.

Tenn., Memphis.—The Suburban Savings Bank & Trust Co., capital \$10,000, is reported to have begun business with directors thus: H. L. Coleman, president; John G. Jones, vice-president; Fred Tripp, cashier; Tony Brignardello, W. E. Graves, H. A. Mitchell, Dr. R. R. Ferrell, Dr. G. A. Lavison, E. H. Kraft, W. B. Lauder, Austin Pearce, O. K. Robinson, Jake Shanberg, A. C. Henry, Lee Biggs, W. P. Biggs and B. J. Campbell. Walter McGoldrick is assistant cashier.

Tex., Amarillo.—The Amarillo National Life Insurance Co., capital \$300,000, expects to begin business about January 1 with officers thus: President, C. T. Herring, Amarillo; vice-president, C. P. Smith, Vernon; treasurer, W. H. Faqua, Amarillo; medical director, Dr. J. W. Greenwood, Memphis; secretary, G. J. Brothers, Fort Worth.

Tex., Anson.—The Yates Abstract Co. has been incorporated with \$3000 capital by O. W. Yates, Ed Kennedy and R. A. Myers.

Tex., Clifton.—Official: The First Guaranty State Bank chartered and incorporated; capital \$10,000; J. N. Colwick, president; H. P. Theis, cashier.

Tex., Crowell.—Chartered: The First State Bank; capital \$25,000. Incorporators, W. A. Waldrop, J. W. Allison, J. H. Self and others.

Tex., Houston.—The Great Southern Life Insurance Co., capital \$1,000,000, is reported to have begun business with J. S. Rice, president; O. S. Carter, C. G. Pillot, J. S. Cullinan and W. P. H. McFadden, vice-presidents; J. T. Scott, treasurer; Louis St. J. Thomas, secretary, and Dr. J. H. Florence, medical director.

Tex., Waco.—A State bank capitalized at \$100,000 is reported organized by F. M. Gardner and J. H. Lockwood.

Tex., Westminster.—The First State Bank, capital \$10,000, incorporated by W. W. Eubanks, C. E. Lewis, D. B. Reed and others.

W. Va., Keyser.—Chartered: The Potomac Realty Co.; capital \$5000; incorporators, W. H. Barger, Warren Harr, Harry V. Whipp and E. G. Hammond of Keyser and R. W. Thrush of Headsville, W. Va.

W. Va., Summersville.—The Farmers and Merchants' Bank of Summersville is reported organized with directors thus: L. J. Groves, president; A. A. Hamilton, vice-president; J. F. Sebert, A. C. Heorild, J. S. Craig, Dr. I. G. McCutcheon, T. J. Mearns, C. N. Walker and W. S. Henderson; Wallace P. Kincaid, cashier.

### NEW SECURITIES.

Ala., Birmingham.—An official letter denies the report that Jefferson county is considering an issue of bonds.

Ala., North Birmingham.—Voted: \$217,000 of 5 per cent. 30-year school, park and funding debt bonds.

Ark., Piggott.—Geo. W. Seltz, secretary St. Francis Drainage District, is reported to be offering at private sale \$220,000 of 6 per cent. drainage bonds.

Fla., Fort Pierce.—An election is to be held in St. Lucie county December 1 to vote on \$200,000 of 5 per cent. 10-30-year road bonds.

Fla., Green Cove Springs.—Reported voted: \$45,000 of water, light, street and sidewalk bonds.

Ga., Jackson.—An election is to be held in Butts county December 11 to vote on \$5000 of bridge and \$15,000 of road-improvement 5 per cent. 30-year bonds, dated January 1, 1910; denomination \$1000. An official letter says that bids will be opened January 1, 1910, for the bonds; J. O. Gaston, H. G. Asbury and W. L. Wilder, commissioners in charge.

Ga., Thomaston.—Paul M. Bowden of Thomson is reported to have purchased at 111.94 and accrued interest \$15,000 of 6 per cent. 11-25-year school-building bonds.

Ky., Catlettsburg.—Defeated: \$100,000 of Boyd county road-improvement bonds.

Ky., Newport.—Voted: \$100,000 of street-improvement bonds. An ordinance will have to be passed by the General Council authorizing the city to issue these bonds and the approval of the Mayor given before anything further can be done. John W. Davis is City Clerk.

La., Mandeville.—Defeated: \$2000 of improvement bonds.

La., Mandeville.—Reported that the question of holding an election to vote on \$10,000 of bonds for breakwater and belt shell road is under consideration.

Md., Baltimore.—Voted: \$1,000,000 of dock loan; J. Barry Mahool is Mayor.

Miss., Ackerman.—The Robinson-Humphrey Company of Atlanta is reported to have been awarded, at \$1235 premium, the \$35,000 of 6 per cent. 20-year water and light bonds.

Miss., Jackson.—City Council is reported to have voted \$100,000 of filtration-plant bonds.

Miss., Vicksburg.—The American Trust & Banking Co. of Vicksburg is reported to have been awarded at par \$7500 of 5-10-year Warren county road and bridge bonds.

Mo., California.—Little & Hays of St. Louis are reported to have purchased \$30,000 of 5 per cent. 10-20-year water-works bonds at \$1025 premium.

Mo., Greenwood.—The Mississippi Valley Trust Co., of St. Louis is reported to have recently purchased at par \$7500 of 5-10-year building bonds.

Mo., Independence.—Voted: \$30,000 of City Hall bonds. Llewellyn Jones is Mayor.

Mo., Kansas City.—Bids will be received until 3 P. M. November 15 by F. P. Gossard, secretary Board of Park Commissioners, for \$140,755 of 7 per cent. 1-20-year park-fund certificates.

Mo., Tusculum.—Defeated: \$30,000 of Miller county courthouse bonds.

N. C., Hillsboro.—Reported voted: \$50,000 of road bonds.

N. C., Rockingham.—Bids will be received by B. F. Reynolds, County Clerk, until noon December 6 for \$15,000 of 5 per cent. 30-year Richmond county road bonds.

N. C., Salisbury.—E. H. Rollins & Sons of Boston have been awarded at \$955.20 premium \$20,000 of 5 per cent. 20-year water-works bonds.

N. C., Wilmington.—The Board of Audit and Finance is reported to have passed a resolution authorizing the sale of \$100,000 of street-improvement bonds.

Okla., Apache.—An election is to be held November 9 to vote on \$54,000 of water-works, sewer and electric-light bonds. H. Peeper is Mayor.

Okla., Beaver.—Bids will be received until noon November 20 for \$23,000 of 5 per cent. 20-year Beaver county funding bonds. John Sims is County Treasurer.

Okla., Capitol Hill.—Bids will be received by W. R. Clement, director, until 3 P. M. November 15 for \$45,000 of school-district bonds; interest at 5, 5½ or 6 per cent.

Okla., Chickasha.—It is reported that \$100,000 of water-works and \$90,000 of sewer 5 per cent. 25-year bonds have been sold.

Okla., Collinsville.—Voted: \$30,000 of water-works and \$7500 of sewerage bonds, same to be sold on or before November 15. Address W. J. Pattison, City Clerk, or T. H. Swisher, president board of trustees.

Okla., Cushing.—Reported that an election is to be held to vote on \$25,000 of water-works bonds.

Okla., Hominy.—Voted: \$36,000 of water-works and sewer bonds.

Okla., Hugo.—Bids will be received until 7 P. M. December 7 for \$75,000 of sewer, \$35,000 of water-works extension and \$20,000 of city hall bonds. J. H. Jackson is treasurer.

Mo., Huntsville.—Randolph county is reported to have voted \$25,000 of jail bonds.

Okla., Lawton.—Reported that it is proposed to hold an election to vote on \$300,000 of 5 per cent. public-improvement bonds.

Okeene, Okla.—Reports state that date for receiving bids for \$30,000 of 6 per cent. bonds have been extended from November 1 to November 15. O. G. Graulman is Town Clerk.

Okla., Ramona.—Reported voted: \$25,500 of water-works and \$10,500 of sewer bonds.

Okla., Ryan.—An election is to be held in Jefferson county, it is reported, to vote on \$10,000 of road and bridge bonds.

S. C., Beaufort.—Voted: Electric-light and water-works bonds. W. F. Marscher, cashier of the People's Bank; W. J. Thomas and R. A. Long were elected members of the board to sell the bonds.

Tenn., Obion.—Reported that an election is to be held to vote on \$30,000 of electric-light and water-works, \$15,000 of street and \$10,000 of school bonds.

Tex., Archer City.—Official: The date for receiving bids for the \$20,000 of 4 per cent. 5-40-year jail bonds has been changed from December 1 to November 15; R. S. Morrison, attorney, Archer county.

Tex., Austin.—The Attorney-General has approved the following securities: \$3000 5 per cent. 12-year Rosenberg street-improvement bonds; \$15,000 of 5 per cent. 20-30-year bonds of Castro county common school district No. 1; \$600 of 5 per cent. Callahan county common school district No. 5 schoolhouse bonds; \$3000 of 5 per cent. 10-40-year Grand Saline independent school-district bonds; \$700 of district No. 14; \$600 of district No. 19; \$500 of district No. 12; \$500 of district No. 8, and \$600 of district No. 16, Franklin county, 5 per cent. 10-20-year school bonds.

Tex., Fort Worth.—Bids will be received until noon December 1 for \$65,000 of fire-hall, \$135,000 of street-improvement, \$25,000 of

light-extension and \$275,000 of water-works 4½ per cent. 20-40-year bonds, dated September 1, 1909; denomination \$1000 each. Address W. J. Gilvin, commissioner of finance

**I**N ORDER to promptly complete the erection of a **LARGE REFINERY**, equipping same with the most modern machinery and begin operations on a very extensive scale to fill orders in hand, The Southern States Cotton Oil Refining Company, Wilmington, N. C., is offering for sale a limited number of its first mortgage 20 year, sinking fund 6% (semi-annual) **GOLD BONDS** at \$1000 each and accrued interest with a bonus of 50% in **COMMON STOCK**. This is **UNQUESTIONABLY** a **CONSERVATIVE** as well as a **REMUNERATIVE** and **PROFITABLE** investment.

Early correspondence and subscriptions invited to this limited issue.

Address for full particulars,

**WM. H. FORMAN**

Suite 908-9-10 160 BROADWAY  
New York, U. S. A.

THE ANNUAL MEETING of the stockholders of the American Cotton Oil Company will be held at the principal office of the Company, the Refinery, near Guttenburg, Hudson County, New Jersey, on Thursday, the 2d day of December, 1909, at 12 o'clock noon, for the purpose of electing Directors and for the transaction of such other business as may properly come before the meeting.

The Stock Transfer Books will be closed on November 11, 1909, at 3 P. M., and will remain closed until December 3, 1909, at 10 A. M.

By order of the Board of Directors,

JUSTUS E. RALPH, Secretary.  
New York, Nov. 4, 1909.

THE BOARD OF DIRECTORS of the American Cotton Oil Company on November 4, 1909, declared a semi-annual dividend of three per cent. upon the Preferred Stock and a dividend of five per cent. upon the Common Stock of the Company, both payable December 1, 1909, at the banking-house of Winslow, Lanier & Co., 59 Cedar street, New York City. The Stock Transfer Books of the Company will be closed on November 11, 1909, at 3 P. M., and will remain closed until December 3, 1909, at 10 A. M.

JUSTUS E. RALPH, Secretary.

**WANTED TO BORROW \$20,000** for one year, with privilege of two, on manufacturing plant that has cost more than \$75,000, which was running and making money, when building collapsed. Money wanted to rebuild. Will give deed of trust, bonds or preferred stock, as lender may desire. Conditions almost ideal.  
C. B. COMPANY.  
Care Manufacturers' Record.

## INTERSTATE AUDIT COMPANY

729 15th Street N. W., WASHINGTON, D. C.  
DEVISERS OF BUSINESS SYSTEMS  
MINIMIZING AND SIMPLIFYING ACCOUNTING METHODS

## THE AMERICAN AUDIT CO.

E. A. LEITCH, Resident Manager.

Mutual Building, RICHMOND, VA.

Our reports are accepted by the leading financiers of the world, and are frequently made the basis of credit.

Home Office, 100 Broadway, New York

Branches in all Principal Cities

Incorporated Under Special Act of Legislature

## BALTIMORE AUDIT COMPANY

1027-1029 Calvert Bldg., BALTIMORE, MD.

All work executed by or under direct supervision of Certified Public Accountants



and revenue. Early in 1910 an additional \$100,000 for general improvement will be issued.

Tex., Houston.—District No. 4 is reported to have voted \$10,000 of school bonds for erection of school at Etta. Address County Superintendent Pugh, Harris county.

Tex., Kirkland.—Bids will be received at any time by J. W. Wilder, secretary, for \$8000 of 5 per cent. 10-40-year school bonds.

Tex., Palestine.—Voted: \$18,000 of fire-station bonds.

Tex., Peniel.—Hunt county is reported to have purchased at par \$2800 of 5 per cent. 10-20-year Peniel independent school district bonds.

Tex., Roby.—Official: Fisher county has sold at private sale to the contractor \$65,000 of 5 per cent. 40-year courthouse bonds; date, November 8, 1909; denomination, \$1000 each. On November 15 bids will be received for \$12,300 of 5 per cent. 20-year Fisher county school bonds; date, August 25, 1909; denomination, \$100 each. W. R. Timmons is superintendent Fisher county.

Tex., Stamford.—Voted: \$15,000 of school bonds.

Tex., Wellington.—The Noel-Young Bond & Stock Co. of St. Louis is reported to have purchased at par \$7200 of 5 per cent. school-building bonds.

Va., Big Stone Gap.—Official—Voted: \$22,000 of street, \$4000 of jail and \$4000 of sewer 5 per cent. 30-year bonds, dated January 1, 1910; denomination \$500; W. H. Horton, Mayor; date of sale not yet determined.

Va., Covington.—Reported defeated: \$30,000 of Clifton district bridge bonds.

Va., Orange.—Bids will be received by F. B. Perry, Mayor, until 8 P. M. November 18 for \$30,000 of 5 per cent. 15-30-year water bonds.

Va., Spottsylvania.—Voted: \$100,000 of Spottsylvania county road bonds, \$60,000 being for Courtland and \$40,000 for Chancellor district. L. A. Harris is Clerk.

W. Va., Charleston.—Defeated: Election held in Charleston, Ponca and Union districts, Kanawha county, to vote on \$180,000 of road bonds.

W. Va., Clarksburg.—Reported that all bids received November 5 for the \$270,000 of 4½ per cent. 9-30-year water, street, sewer and refunding bonds were rejected and that new bids will be asked.

W. Va., Bluefield.—The city is reported to have under consideration an issue of \$150,000 of water-works bonds.

W. Va., New Martinsville.—Reports state that the \$12,000 of water-works bonds were purchased at a premium of \$589.20 by the New Martinsville Bank.

At Woodward, Okla., bids will be received until 7.30 P. M. November 29 for \$26,000 of 5 per cent. 25-year water-works bonds. Further particulars will be found in the advertising columns.

At Rockingham, N. C., bids will be received until noon December 6 for \$15,000 of 5 per cent. 30-year Richmond county road bonds. Full particulars will be found in the advertising columns.

#### FINANCIAL NOTES.

The Palacios State Bank at Palacios, Tex., is reported to have voted to increase its capital from \$15,000 to \$25,000.

The American Cotton Oil Co. has declared a semi-annual dividend of 3 per cent. upon its preferred stock and a dividend of 5 per cent. upon the common stock, payable December 1, 1909. Justus E. Ralph is secretary.

### MODERN SIX-STORY WAREHOUSE FOR RENT

This property is centrally located in Baltimore, Md., occupying the entire block, 34x103, bounded by Calvert, Lombard, Water and Cheapside; sidewalk and light on four sides; elevators, electric lights and all modern conveniences.

#### ADDRESS

ALEXANDER YEARLEY & SON  
Charles and Lexington Sts.  
BALTIMORE, MD.

Established 1891

Price \$10, express charges prepaid

18th ANNUAL EDITION—JUST ISSUED

## HENDRICKS'

Commercial Register of the United States for  
Buyers and Sellers

Over 350,000 names and addresses of American manufacturers classified under 35,774 classifications, representing about every Machine, Material, Apparatus or Specialty required in the Architectural, Engineering, Mechanical, Electrical, Manufacturing, Railroad, Mine, Quarrying and kindred industries, embracing everything.

FOR RAILROADS—from a track bolt to a locomotive.  
FOR MINES—from a miner's lamp to a stamp mill or steel tipple.  
FOR BUILDING AND CONSTRUCTION—every known Material, Specialty, Apparatus or Machine required.  
FOR ELECTRICAL TRADE—from a push button to a generator.  
FOR MACHINE SHOPS—from a tool holder to a boring and turning mill or traveling crane.  
FOR FOUNDRIES—from a molder's flask to a cupola.  
FOR CONTRACTORS—from a pick or shovel to a hoisting engine or steam shovel.  
FOR AGRICULTURE—from a garden rake to a mower and reaper.  
FOR POWER TRANSMISSION—everything from a belt fastener to a complete system, including the latest specialties in right angle transmission and variable speed countershafts.  
FOR HEATING AND VENTILATING—from an air valve or ventilating fan valve to a high or low pressure boiler.  
FOR PLUMBING WORK—from a closet pull to a water-closet range.  
FOR MILL OR FACTORY—everything needed in the construction and equipment of same and every operating supply required.  
FOR THE DRAFTING ROOM—from a drawing pencil to a blueprinting machine.  
FOR WATER SUPPLY—from a water-pressure gauge to a pumping engine or standpipe.  
FOR MUNICIPAL WORK—from a paving brick or sewer inlet to a steam road roller.  
HARDWARE—everything in builders', shelf and heavy hardware.  
IRON, STEEL AND OTHER METALS—everything made from iron, steel, brass, etc., whether cast, rolled, drawn, pressed or forged, including bar, plate, sheet, wire, structural and other shapes, pipe, tubes, bands, hoops, high speed, high carbon, tool and other high-grade steels, bolts, nails, nuts, rivets, screws, rods, spikes, chains, shafting, reinforcing bars, etc. Castings of every description, from all metals.  
MACHINERY—over 2700 classifications of as many different kinds.  
For our Commercial Rating we refer you to Dun or Bradstreet.

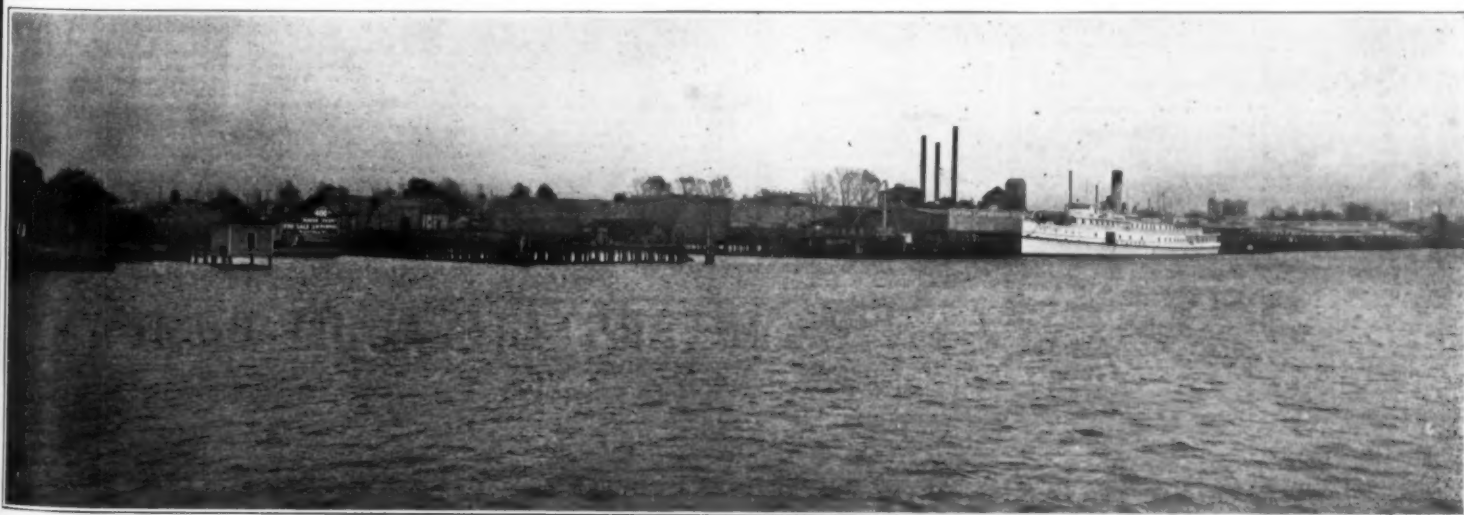
S. E. HENDRICKS CO., Publishers

74 Lafayette Street

NEW YORK CITY

## Four Hundred Feet of Valuable Water Front for Sale IN THE CITY OF NORFOLK

lying between the Cotton Warehouses and Fort Norfolk, twenty feet depth of water at the present dock line.



Ask anyone about the future of Norfolk, especially as to the Water Front. Secure your site in advance, as the Old Dominion Steamship Co. has done, which piece lies just west of the above property. For particulars, apply to the undersigned.

S. W. PANNILL, = = = = NORFOLK, VA.

## ALPHABETICAL INDEX OF ADVERTISERS.

FOR "CLASSIFIED ADVERTISING"  
SEE PAGES 76-77

Ads. marked \* appear every other week. Ads. marked † appear in first issue of the month. Ads. marked ‡ not in this issue

<p><b>A</b></p> <p>Abbott &amp; Co., F. O. . . . . 71</p> <p>Abendroth &amp; Root Mfg. Co. . . . . 5</p> <p>Abrasive Material Co. . . . . 11</p> <p>Acme Equipment &amp; Engr'g Co. . . . . 96</p> <p>Address No. 14 North 7th St., Richmond, Va. . . . . 79</p> <p>Aetna Engineering Bureau . . . . . 20</p> <p>Air-Tight Steel Tank Co. . . . . 114</p> <p>Albany Steam Trap Co. . . . . 116</p> <p>Albergo Condenser Co. . . . . 9</p> <p>Albergo Pump Co. . . . . 9</p> <p>Alexander, H. L. . . . . 79</p> <p>Allegheny Steel Co. . . . . 5</p> <p>Alpha Photo-Engraving Co. . . . . 23</p> <p>Alpha Portland Cement Co. . . . . 24</p> <p>Alpha Slate Co., The . . . . . 34</p> <p>Alsing Engineering Co., J. R. . . . . 100</p> <p>Aluminum Co. of America . . . . . 100</p> <p>American Air Compress. Wks. . . . . 80</p> <p>American Asphaltum &amp; Rubber Co. . . . . 8</p> <p>American Audit Co., The . . . . . 72</p> <p>American Flower Co. . . . . 87</p> <p>American Bridge Company of New York . . . . . 32</p> <p>American Cast Iron Pipe Co. . . . . 104</p> <p>American Cement Co. . . . . 24</p> <p>American Clay Mch. Co. The . . . . . 36</p> <p>American Compressor &amp; Pump Co. . . . . 89</p> <p>American Cotton Oil Co., The . . . . . 109</p> <p>Amer. Electric Mch. &amp; Elevator Co. . . . . 18</p> <p>American Engine Co. . . . . 4</p> <p>American Frog &amp; Switch Co. . . . . 82</p> <p>American Hoist &amp; Derrick Co. . . . . 91</p> <p>American Iron &amp; Steel Mfg. Co. . . . . 102</p> <p>American Laundry Machinery Mfg. Co. . . . . 96</p> <p>American Locomotive Co. . . . . 87</p> <p>American Luxfer Prism Co. . . . . 37</p> <p>American Machine Co. . . . . 19</p> <p>American Mfg. Co. . . . . 71</p> <p>American Pipe &amp; Construction Co. . . . . 104</p> <p>American Process Co. . . . . 41</p> <p>American Pulley Co., The . . . . . 35</p> <p>American Pulverizer Co. . . . . 38</p> <p>American Railway Supply Co. . . . . 38</p> <p>American Rolling Mill Co. . . . . 98</p> <p>Amer. Saw Mill Mch. Co. . . . . 108</p> <p>American Sheet &amp; Tin Plate Co. . . . . 4</p> <p>American Spiral Pipe Works . . . . . 104</p> <p>American Steel &amp; Wire Co. . . . . 16</p> <p>American Supply Co. of Providence, R. I. . . . . 4</p> <p>American System of Reinforcing . . . . . 27</p> <p>American Valve &amp; Meter Co. . . . . 106</p> <p>American Water Softener Co. . . . . 11</p> <p>American Well Works, The . . . . . 106</p> <p>Amerman, A. E. . . . . 78</p> <p>Anderson, South Carolina . . . . . 113</p> <p>Anderson Machine &amp; Foundry Co. . . . . 100</p> <p>Arncliffe Mfg. Co. . . . . 34</p> <p>Arnold Co., The . . . . . 20</p> <p>Arundel Sand &amp; Gravel Co. . . . . 23</p> <p>Asheville Real Estate Co. . . . . 79</p> <p>Ashland Fire Brick Co. . . . . 42</p> <p>Associated Engineering Co. . . . . 21</p> <p>Atlanta Utility Works . . . . . 110</p> <p>Atlantic Equipment Co. . . . . 83</p> <p>Atlantic Hydraulic Mch. Co. . . . . 104</p> <p>Atlas Machine Co. . . . . 18</p> <p>Atlas Portland Cement Co. . . . . 25</p> <p>Austin Mfg. Co. . . . . 38</p> <p>Austin-Western Co., Ltd., The . . . . . 99</p> <p>Automatic Fire Extinguisher Co. . . . . 103</p> <p>Avery Co. . . . . 97</p> <p>Avery &amp; Sons, B. F. . . . . 2</p>	<p>Babcock &amp; Wilcox Co. . . . . 8</p> <p>Babcock &amp; Sons Co., E. B. . . . . 39</p> <p>Baldy-Lebby Co. . . . . 116</p> <p>Baldy, E. B. . . . . 78</p> <p>Baker Ice Machine Co. . . . . 10</p> <p>Baldwin Equip. &amp; Supply Co. . . . . 83</p> <p>Baldwin Locomotive Works . . . . . 8</p> <p>Ball Engine Co. . . . . 4</p> <p>Baltimore Audit Co. . . . . 72</p> <p>Baltimore Belting Co. . . . . 1</p> <p>Baltimore Bridge Co. . . . . 106</p> <p>Baltimore Buggy Top Co. . . . . 106</p> <p>Baltimore Cooperage Co. . . . . 103</p> <p>Baltimore Electrical Supply Co. . . . . 115</p> <p>Baltimore Foundry Co. . . . . 100</p> <p>Baltimore Office Supply Co. . . . . 71</p> <p>Baltimore Retort &amp; Fire Brick Co. . . . . 8</p> <p>Baltimore Steam Packet Co. . . . . 113</p> <p>Baltimore Trust &amp; Guarantee Co. . . . . 71</p> <p>Bank of Richmond . . . . . 71</p> <p>Banner Electric Co., The . . . . . 2</p> <p>Barber Asphalt Paving Co. . . . . 34</p> <p>Barnard &amp; Sons Mfg. Co. . . . . 105</p> <p>Barnett Co., G. &amp; H. . . . . 116</p> <p>Bartlett Mfg. Co. . . . . 3</p> <p>Bartlett Haywood Co., The . . . . . 3</p> <p>Bartlett &amp; Snow Co., O. O. . . . . 5</p> <p>Bel Air, Md., Board of Trade . . . . . 113</p> <p>Belmont Iron Works, Inc. . . . . 32</p> <p>Berger Mfg. Co. . . . . 37</p> <p>Berry Bros., Ltd. . . . . 37</p> <p>Bertech &amp; Co. . . . . 81</p> <p>Bird &amp; Son, F. W. . . . . 34</p> <p>Bird &amp; Co., J. A. &amp; W. . . . . 34</p> <p>Birmingham Lumber Co. . . . . 34</p> <p>Bituminous Coal Co., The . . . . . 17</p> <p>H. J. C. O. Manufacturers' Record . . . . . 79</p> <p>Blade Mfg. Co., The Geo. F. . . . . 89</p> <p>Blake Mfg. Co., The Geo. F. . . . . 89</p> <p>Blakemore, W. B. . . . . 3</p> <p>Bliss Co., E. W. . . . . 3</p> <p>Block-Pollak Iron Co. . . . . 84</p> <p>Bluff City Lumber Co. . . . . 74</p> <p>Boisjoly &amp; Wire Works, J. E. . . . . 33</p> <p>Bonifay, F. L. . . . . 3</p> <p>Boomer &amp; Boschert Press Co. . . . . 75</p> <p>Borst &amp; Company . . . . . 30</p> <p>Bourne The . . . . . 116</p>	<p>Bowen, Joseph E. . . . . 88</p> <p>Box 2-S, South Bend, Ind. . . . . 79</p> <p>Brinly-Hardy Co. . . . . 2</p> <p>Broad River Power Co. . . . . 78</p> <p>Broadway Graphic Co. . . . . 2</p> <p>Broderick &amp; Bascom Rope Co. . . . . 18</p> <p>Brown &amp; Gettel . . . . . 20</p> <p>Brown Hoisting Mch. Co. . . . . 111</p> <p>Brown, W. T. . . . . 11</p> <p>Brownell Co., The . . . . . 6</p> <p>Browning Mfg. Co. . . . . 6</p> <p>Browning Engineering Co. . . . . 95</p> <p>Buckeye Iron &amp; Brass Works . . . . . 110</p> <p>Bucyrus Company, The . . . . . 83</p> <p>Buffalo Forge Co. . . . . 41</p> <p>Buffalo Steam Pump Co. . . . . 41</p> <p>Buffalo Steam Roller Co. . . . . 99</p> <p>Bull Creek Sand &amp; Gravel Co. . . . . 20</p> <p>Burgess, C. F. E. . . . . 20</p> <p>Burr &amp; Son, John T. . . . . 34</p> <p>Burris &amp; Son, John T. . . . . 34</p> <p>Burroughs Adding Mach. Co. . . . . 109</p> <p>Burroughs Engineering Co. . . . . 109</p> <p>Busey, Arthur S. . . . . 79</p> <p>Byers Machine Co., John F. . . . . 98</p>	<p><b>C</b></p> <p>Caldwell &amp; Co., E. R. . . . . 91</p> <p>Caldwell &amp; Sons Co., H. W. . . . . 10</p> <p>Caldwell Co., Inc., W. E. . . . . 10</p> <p>Callahan Co., The W. F. . . . . 110</p> <p>Cameron Stn. Pump Wks., A. S. . . . . 32</p> <p>Cameron, Barkerley Co. . . . . 20</p> <p>Cameron McClellan Co., The . . . . . 20</p> <p>Canton Bridge Co. . . . . 83</p> <p>Canton Culvert Co. . . . . 99</p> <p>Carborundum Co. . . . . 109</p> <p>Carden Machine Co., The . . . . . 82</p> <p>Carl's Sons Co., Thomas . . . . . 91</p> <p>Carnegie Steel Co. . . . . 24</p> <p>Carnell, George . . . . . 2</p> <p>Carolina Asbestos Mfg. Co. . . . . 114</p> <p>Carolina Electric &amp; Light Co. . . . . 114</p> <p>Carolina Electric Co. . . . . 114</p> <p>Carolina Ice Machine Co. . . . . 10</p> <p>Carolina Portland Cement Co. . . . . 24</p> <p>Carolina Supply Co. . . . . 109</p> <p>Carroll Iron Works . . . . . 109</p> <p>Carpenter Tap &amp; Die Co., J. M. . . . . 100</p> <p>Carver Cotton Gin Co. . . . . 2</p> <p>Carver File Co. . . . . 116</p> <p>Cary Spring Works . . . . . 2</p> <p>Cass Threshing Mch. Co., J. L. . . . . 99</p> <p>Caser, Joseph Huntley . . . . . 20</p> <p>Caslie, G. E. . . . . 78</p> <p>Castell &amp; Trefny . . . . . 17</p> <p>Castner, Curran &amp; Bullitt . . . . . 20</p> <p>Cato, W. R. . . . . 20</p> <p>C. B. Co., care of Manuf. Record . . . . . 72</p> <p>Central Foundry Co. . . . . 104</p> <p>Central of Georgia Railway . . . . . 112</p> <p>Central Cement Co. . . . . 42</p> <p>Chambers Bros. Mach. Co. . . . . 103</p> <p>Charlotte Contract Co. . . . . 103</p> <p>Chase Turbine Mfg. Co. . . . . 2</p> <p>Chattanooga Roller &amp; Tank Co. . . . . 103</p> <p>Chattanooga Iron &amp; Wire Wks. . . . . 81</p> <p>Chattanooga Paint Co. . . . . 114</p> <p>Chesapeake, C. O. Mfrs. Record . . . . . 72</p> <p>Chesapeake Belting Co. . . . . 15</p> <p>Chesapeake Iron Works . . . . . 32</p> <p>Chicago Steamship Co. . . . . 113</p> <p>Chester Steel Casting Co. . . . . 87</p> <p>Chicago &amp; Alton Railroad Co. . . . . 114</p> <p>Chicago House Wrecking Co. . . . . 81</p> <p>Chicago Pneumatic Tool Co. . . . . 39</p> <p>Church &amp; Dwight Co. . . . . 81</p> <p>Cincinnati Equip. Co. . . . . 82, 83, 84</p> <p>Cincinnati Frog &amp; Switch Co. . . . . 58</p> <p>Clark, Geo. M. . . . . 106</p> <p>Clark Co., H. W. . . . . 106</p> <p>Associated Engineers' Record . . . . . 76, 77</p> <p>Classified Opportunities . . . . . 76, 77</p> <p>Clayton Air Compressor Wks. . . . . 80</p> <p>Cleveland Belting &amp; Mch. Co. . . . . 80</p> <p>Cleveland Crane &amp; Eng. Co. . . . . 18</p> <p>Clumax Mfg. Co. . . . . 87</p> <p>Clinchfield Coal Corporation . . . . . 3</p> <p>Cling-Surface Co. . . . . 15</p> <p>Clover Leaf Machine Co. . . . . 31</p> <p>Clyde Iron Works . . . . . 31</p> <p>Coal Cars, care of Manuf. Record . . . . . 72</p> <p>Cobb Real Estate &amp; Ins. Co., J. B. . . . . 79</p> <p>Coldwell-Wilcox Co. . . . . 103</p> <p>Co. Mfg. Co., R. D. . . . . 103</p> <p>Columbia Incandescent Lamp Co., The . . . . . 1</p> <p>Columbia Mfg. Co. . . . . 1</p> <p>Columbian Concrete Steel Bar Co. . . . . 4</p> <p>Columbian Iron Works . . . . . 107</p> <p>Columbian Electric Co. . . . . 107</p> <p>Columbus Brick &amp; Terra-Cotta Co., The . . . . . 39</p> <p>Columbus Forge &amp; Iron Co. . . . . 101</p> <p>Columbus Iron Works Co. . . . . 11</p> <p>Conard &amp; Co., Thomas . . . . . 81</p> <p>Concrete, C. O. Mfrs. Record . . . . . 72</p> <p>Concrete Steel Co., The . . . . . 24</p> <p>Concrete Steel Engineering Co. . . . . 27</p> <p>Conditt, S. H. . . . . 116</p> <p>Cross-Created Cotton Duck . . . . . 116</p> <p>Consolidated Rosendale Cement Co. . . . . 42</p> <p>Consolidation Coal Co. . . . . 17</p> <p>Continental Equip. &amp; Equip. Co. . . . . 82</p> <p>Continental Coal Corporation . . . . . 11</p> <p>Continental Gin Co. . . . . 39</p> <p>Contractors' Plant Mfg. Co. . . . . 59</p> <p>Conway, J. W. . . . . 103</p> <p>Cook's Steel Co., Adam . . . . . 106</p> <p>Cook Well Co. . . . . 106</p> <p>Cooper Co., C. &amp; G. . . . . 6</p> <p>Copeland-Ingalls Shale Brick Co. . . . . 36</p> <p>Corrugated Bar Co. . . . . 24</p> <p>Cosby, Charles . . . . . 92</p> <p>Cotton Belt Route . . . . . 111</p> <p>Cotton States Belt &amp; Sup. Co. . . . . 77</p> <p>Covington Machine Co. . . . . 75</p> <p>Crawford, O. W. . . . . 2</p> <p>Crescent Belt Fastener Co. . . . . 15</p> <p>Crescent Co., George V. . . . . 12</p> <p>Crocker-Wheeler Co. . . . . 115</p> <p>Crook-Kries &amp; Co. . . . . 21</p> <p>Crook-Kries &amp; Co. . . . . 21</p> <p>Crucible Steel Co. . . . . 39</p> <p>Crucible Steel Casting Co. . . . . 100</p> <p>Cumberland Steel Co. . . . . 15</p> <p>Cutler Mail Chute Co. . . . . 21</p> <p>Cypress Lumber Co. . . . . 103</p>	<p><b>D</b></p> <p>Dake Engine Co. . . . . 93</p> <p>Dallas, Park A. &amp; W. . . . . 21</p> <p>Dart Mfg. Co. . . . . 21</p> <p>Davenport, J. R. . . . . 79</p> <p>Davenport Locomotive Works . . . . . 87</p> <p>Davey &amp; Sons, W. O. . . . . 108</p> <p>Davison Co., Graham . . . . . 21</p> <p>Davies, Frank . . . . . 84</p> <p>Davis Foundry &amp; Mach. Works . . . . . 103</p> <p>Davis &amp; Son, G. M. . . . . 103</p> <p>Dayton Globe Iron Wks. Co. The . . . . . 108</p> <p>Dean Bros. Steam Pump Wks. . . . . 108</p> <p>Deane Steam Pump Co. . . . . 103</p> <p>Decatur Car &amp; Roofing Co. Inc. . . . . 28</p> <p>Delaware Steam Turbine Co. . . . . 71</p> <p>Delaware Fidelity Trust Co. . . . . 71</p> <p>Delaware Trust Co. . . . . 71</p>	<p><b>E</b></p> <p>Deming Co., The . . . . . 105</p> <p>Des Moines Bridge &amp; Iron Co. . . . . 103</p> <p>Dezobry-Stapman Mfg. Co. . . . . 8</p> <p>Detroit Graphic Co. . . . . 2</p> <p>Detroit Leather Special, Co. Inc. . . . . 42</p> <p>Devine Co., J. P. . . . . 42</p> <p>Dew, L. O. . . . . 106</p> <p>Diamond Rubber Co., The . . . . . 13</p> <p>Dick, L. E. &amp; J. . . . . 13</p> <p>Dicker, John W. . . . . 104</p> <p>Dimmick Pipe Co. . . . . 104</p> <p>Disinger &amp; Bro. Co., C. H. A. . . . . 4</p> <p>Dixie Electro Magnet Co. . . . . 110</p> <p>Dixie Portland Cement Co. . . . . 25</p> <p>Dixie Seal &amp; Stamp Co. . . . . 99</p> <p>Dixon Crucible Co., Joseph H. . . . . 116</p> <p>Dobbie Fdry. &amp; Machine Co. . . . . 2</p> <p>Dodge Mfg. Co. . . . . 2</p> <p>Dodge &amp; Day . . . . . 20</p> <p>Dorner Railway Equipment Co. . . . . 81</p> <p>Douglas-Hill Electric Co. . . . . 114</p> <p>Dow Wire &amp; Iron Works Co. . . . . 33</p> <p>Draper Co. . . . . 109</p> <p>Dual Oak Belting Co., (Inc.) . . . . . 12</p> <p>DuBois Iron Works . . . . . 33</p> <p>Dufur, Baggot &amp; Co. . . . . 33</p> <p>Dufur &amp; Co. . . . . 33</p> <p>Dunne, E. J. &amp; W. K. . . . . 20</p> <p>Dunning, W. . . . . 20</p> <p>Duntley Mfg. Co. . . . . 69</p> <p>DuPont De Nemours Powder Co., E. I. . . . . 17</p>	<p><b>F</b></p> <p>Eagle Wagon Works . . . . . 96</p> <p>Eagle Gear Mch. Co. . . . . 14</p> <p>East Bangor Cons. Slate Co. . . . . 34</p> <p>Eaton &amp; Burnett Bus. College . . . . . 20</p> <p>Ebert, Jacob . . . . . 20</p> <p>Eco Magnet Clock Co. . . . . 75</p> <p>Economy Rse Mch. Co. . . . . 21</p> <p>Economy Machinery Co. . . . . 19</p> <p>Eden Development Co., The . . . . . 19</p> <p>Edison Portland Cement Co. . . . . 25</p> <p>Edwards Manufacturing Co. . . . . 35</p> <p>Elastic Paint &amp; Mfg. Co., The . . . . . 115</p> <p>Electric Hose &amp; Rubber Co. . . . . 89</p> <p>Electric Storage Battery Co. . . . . 115</p> <p>Erie Perforating Co. . . . . 22</p> <p>Erie Pipe &amp; Engine Works . . . . . 2</p> <p>Eureka Fire Hose Mfg. Co. . . . . 96</p> <p>Eureka Machine Co. . . . . 96</p> <p>Eureka Supply Co. . . . . 83</p> <p>Evans &amp; Co., David E. . . . . 22</p> <p>Expanded Metal &amp; Corrugated Bar Co. . . . . 24</p>	<p><b>G</b></p> <p>Fabrizio Metal Co. . . . . 10</p> <p>Falling Rock Canal Coal Co. . . . . 79</p> <p>Farrar Co., Ltd., A. B. . . . . 32</p> <p>Farris Bridge Co. . . . . 32</p> <p>Fendick &amp; Co., Albert . . . . . 79</p> <p>Fennell, John . . . . . 79</p> <p>Fidelity &amp; Deposit Co. of Md. . . . . 71</p> <p>First Nat'l Bank of Key West . . . . . 71</p> <p>First National Bank of Newport News, Va. . . . . 79</p> <p>Fisher, A. K. . . . . 81</p> <p>Fleet-McGinley Co. . . . . 93</p> <p>Floory Mfg. Co., S. . . . . 93</p> <p>Foss Gas Engine Co., The . . . . . 70</p> <p>Forman, Wm. H. . . . . 102</p> <p>Port Wayne Electric Works . . . . . 114</p> <p>Postoria Incandescent Lamp Co. . . . . 39</p> <p>Pource River Lumber Co. . . . . 39</p> <p>Power, Ewing Co. . . . . 20</p> <p>Proctor Co. . . . . 20</p> <p>Franklin Steel Co. . . . . 20</p> <p>Franklin, J. E. . . . . 81</p> <p>Fredericksburg Business Men's Assn. . . . . 113</p> <p>Freeman &amp; Sons Mfg. Co., S. . . . . 8</p> <p>Freese &amp; Co., E. M. . . . . 89</p> <p>French Oil Mill Mch. Co., The . . . . . 110</p> <p>Frick Co. . . . . 10</p> <p>Froehling &amp; Robertson . . . . . 50</p>	<p><b>H</b></p> <p>Gaffney Board of Trade . . . . . 113</p> <p>Gager Lime &amp; Mfg. Co. . . . . 8</p> <p>Gaines-Signal Oil Co. . . . . 8</p> <p>Gainesville Iron Works . . . . . 15</p> <p>Galt &amp; Son . . . . . 15</p> <p>Gandy Belting Co. . . . . 15</p> <p>Gardner &amp; Howe . . . . . 20</p> <p>General Electric Co. . . . . 114</p> <p>General Fire Extinguisher Co. . . . . 103</p> <p>General Fireproofing Co., The . . . . . 26</p> <p>General Range State Co. . . . . 113</p> <p>Georgia Bar. of Indus. &amp; Minnig. . . . . 113</p> <p>Georgia Car Co. . . . . 39</p> <p>Georgia Creosoting Co. . . . . 39</p> <p>Gibbes Machinery Co. . . . . 81</p> <p>Gibbs Gas Engine Co., The . . . . . 7</p> <p>Gillette-Vibber Co., The . . . . . 104</p> <p>Girvan-Nachod Co. . . . . 104</p> <p>Glammorgan Pipe &amp; Mfg. Co. . . . . 109</p> <p>Glenn, Wm. S. . . . . 78</p> <p>Golden's Foundry &amp; Mach. Co. . . . . 18</p> <p>Goulds Manufacturing Co. . . . . 105</p> <p>Grace &amp; Co., W. R. . . . . 81</p> <p>Grand Rapids Veneer Works . . . . . 167</p> <p>Greaves, Klusman &amp; Co. . . . . 4</p> <p>Green Fuel Economizer Co. . . . . 4</p> <p>Greene, John M. . . . . 77</p> <p>Greensboro Boiler &amp; Machine Co. . . . . 6</p> <p>Greenspan &amp; Sons Pipe &amp; Supply Co., Jos. . . . . 77, 82</p> <p>Greenevald Co., J. E. . . . . 2</p> <p>Greory Electric Co. . . . . 7</p> <p>Griffith &amp; Wedge Co., The . . . . . 6</p> <p>Grison-Spencer Co., The . . . . . 4</p> <p>Gulfport Creosoting Co. . . . . 39</p> <p>Gulf Refining Co. . . . . 96</p>	<p><b>I</b></p> <p>Haddock, Edwin J. . . . . 20</p> <p>Hale, W. M. . . . . 20</p> <p>Hammond-Hyrd Co., The . . . . . 20</p> <p>Harbison-Walker Refractories Co. . . . . 42</p> <p>Harley Boiler Works . . . . . 5</p> <p>Harris Air Pump Co. . . . . 1</p> <p>Harrisburg Fdry. &amp; Mach. Wks . . . . . 103</p> <p>Harry Bros. Co. . . . . 103</p> <p>Haskell-Davies Mch. Co., The . . . . . 7</p> <p>Hatton, T. Chalkley . . . . . 78</p> <p>Hayes, J. J. . . . . 78</p> <p>Hayward Co., The . . . . . 15</p> <p>Hazelhurst &amp; Anderson &amp; Ed. A. Werner . . . . . 21</p> <p>Hazelhurst Electric Co. . . . . 114</p> <p>Heine Safety Boiler Co. . . . . 5</p> <p>Heine &amp; Drumgold Co., The . . . . . 108</p> <p>Hendrick Mfg. Co. . . . . 22</p> <p>Hendrick Co., S. E. . . . . 73</p> <p>Hickman, Williams &amp; Co. . . . . 84</p> <p>Hicks Locomotive &amp; Car Wks. . . . . 84</p> <p>Hill Clutch Co., The . . . . . 84</p> <p>Hillery &amp; Co., H. W. . . . . 79</p>	<p><b>J</b></p> <p>Hirsch &amp; Sons Iron &amp; Rail Co. . . . . 82</p> <p>Hoffman, Geo. W. . . . . 103</p> <p>Hoffman &amp; Co., R. O. . . . . 84</p> <p>Hoed &amp; Co., A. J. . . . . 71</p> <p>Hornet-Mantel Co. . . . . 1</p> <p>Hotel Belvedere . . . . . 111</p> <p>Hotel Essex . . . . . 75</p> <p>Hotel Patten . . . . . 114</p> <p>Hotel Plaza . . . . . 114</p> <p>Houston, Stanwood &amp; Gamble Co. . . . . 79</p> <p>Howe, A. V. . . . . 79</p> <p>Hovells Mining Drill Co. . . . . 116</p> <p>Hovey Scale Co. . . . . 116</p> <p>Howar, J. K. . . . . 25</p> <p>Huber Mfg. Co., The . . . . . 97</p> <p>Hudson Engineering Co. . . . . 106</p> <p>Hughes Specialty Well Drill Co. . . . . 106</p> <p>Huthier Bros. Saw Mfg. Co. . . . . 42</p> <p>Huttig Mfg. Co. . . . . 84</p> <p>Hyslop Bros. &amp; Co. . . . . 58</p> <p>Hydraulic Press Brick Co. . . . . 39</p> <p>Hydraulic Properties Co., The . . . . . 21</p> <p>Hyndman Roofing Co. . . . . 21</p>	<p><b>K</b></p> <p>Ideal Electric Co. . . . . 114</p> <p>Illinois &amp; St. Louis Railroad . . . . . 113</p> <p>Independent Pneumatic Tool Co. . . . . 17</p> <p>India Alkali Works . . . . . 77</p> <p>Indianapolis Mch. Exchange . . . . . 77</p> <p>Indiana Switch &amp; Eng. Co. . . . . 77</p> <p>Industrial Lumber Co. . . . . 29</p> <p>Ingersoll-Rand Co. . . . . 29</p> <p>Inland Steel Co. . . . . 89</p> <p>International Car Co., The . . . . . 89</p> <p>International Creosoting &amp; Construction Co. . . . . 39</p> <p>International Filter Co. . . . . 11</p> <p>International Trust Co. of Md. . . . . 72</p> <p>Interstate Trust Co. . . . . 71</p> <p>Interstate Portland Cement Co. . . . . 25</p> <p>Iroquois Iron Works, The . . . . . 2</p>	<p><b>L</b></p> <p>J. C. H. Galvanizing Co. . . . . 33</p> <p>Jefferson Powder Co. . . . . 17</p> <p>Jeffrey Mfg. Co. . . . . 17</p> <p>Jellison Coal Co. . . . . 17</p> <p>Jennings, Geo. W. . . . . 116</p> <p>Jencks, Higelow &amp; Brooks . . . . . 2</p> <p>Keighly, W. J. &amp; Sons Mfg. Co. . . . . 8</p> <p>Johnson, Chas. E. . . . . 74</p> <p>Johnson Co., E. J. . . . . 74</p> <p>Jones &amp; Laughlin Steel Co. . . . . 18</p> <p>Jones &amp; Co., L. E. . . . . 33</p> <p>Joseph Iron Co., Isaac . . . . . 84</p>	<p><b>M</b></p> <p>Kaiser, Louis E. . . . . 75</p> <p>Kander &amp; Co., H. . . . . 79</p> <p>Kansas City Elevator Mfg. Co. . . . . 19</p> <p>Keeler Co., E. . . . . 19</p> <p>Keighly, W. J. &amp; Sons Mfg. Co. . . . . 8</p> <p>Keller &amp; Spangler . . . . . 20</p> <p>Kelly Springfield Road Roller Co. . . . . 99</p> <p>Kentucky Electrical Co. . . . . 115</p> <p>Kentucky Portland Cement Co. . . . . 106</p> <p>Keystone Pump &amp; Well Engine Co. . . . . 106</p> <p>Keystone Steam Well Machine Co. . . . . 42</p> <p>Kilgus, E. D. . . . . 20</p> <p>Kilby Frog &amp; Switch Co. . . . . 83</p> <p>Killian Fire Brick Works . . . . . 8</p> <p>Kinnear &amp; Co., J. T. . . . . 79</p> <p>Kinnear Mfg. Co., The . . . . . 42</p> <p>Kirchman Portland Cement Co. . . . . 20</p> <p>Kitson Machine Shop . . . . . 106</p> <p>Kline, Louis T. . . . . 106</p> <p>Knobles &amp; Co., Frank A. . . . . 6</p> <p>Knobles Steam Pump Works . . . . . 24</p> <p>Kosmos Portland Cement Co. . . . . 24</p>	<p><b>N</b></p> <p>Nashville Hardwood Floor Co. . . . . 17</p> <p>Nathan Mfg. Co. . . . . 17</p> <p>National Cap Co. . . . . 100</p> <p>National Exchange Bank of Baltimore, Md. . . . . 71</p> <p>National File &amp; Tool Co. . . . . 15</p> <p>National Hoisting Engine Co. . . . . 91</p> <p>National Leather Belting Co. . . . . 39</p> <p>National Lumber &amp; Creosoting Co. . . . . 39</p> <p>National Paint Works . . . . . 42</p> <p>National Pipe Bending Co. . . . . 34</p> <p>National Roofing Co. . . . . 34</p> <p>National Tube Co. . . . . 34</p> <p>Naylor &amp; Sons Co. . . . . 38</p> <p>New Albany Mfg. Co. . . . . 38</p> <p>Newell, A. T. . . . . 97</p> <p>N. J. Car Spring &amp; Rub. Co. . . . . 12</p> <p>N. J. Wire Cloth Co. . . . . 108</p> <p>Newman Machine Co. . . . . 108</p> <p>New Orleans Ref. &amp; Metal Wks. . . . . 2</p> <p>Newport News Shipbuilding &amp; Dry Dock Co. . . . . 111</p> <p>New St. Charles Hotel . . . . . 111</p> <p>New York Central Jewell Fil. Co. . . . . 11</p> <p>New York Leather Belting Co. . . . . 11</p> <p>New York Revolving Portable Elevator Co. . . . . 19</p> <p>N. Y. Switch &amp; Creosoting Co. . . . . 20</p> <p>Niagara Falls Met. Stam. Wks. . . . . 20</p> <p>Nickerson Plate Washer Co. . . . . 42</p> <p>Nicholson File Co. . . . . 42</p> <p>Nicent, N. M. . . . . 33</p> <p>Noelke-Bridge Iron Works . . . . . 33</p> <p>Nordyke &amp; Marmon Co. . . . . 38</p> <p>Norfolk &amp; Western Ry. . . . . 111</p> <p>North American Metaline Co. . . . . 15</p> <p>North Carolina Granite Corp. . . . . 23</p> <p>North Florida Lumber Co. . . . . 23</p> <p>North Jersey Paint Co., The . . . . . 23</p> <p>Northampton Portland Cement Co. . . . . 24</p> <p>Northern Engineering Works . . . . . 24</p> <p>Norton Co. . . . . 71</p> <p>Nureen &amp; Co., John . . . . . 71</p>	<p><b>O</b></p> <p>Ober Mfg. Co., The . . . . . 108</p> <p>Ohio Ceramic Engineering Co. . . . . 18</p> <p>Ohio Elevator &amp; Machine Co. . . . . 18</p> <p>Old Dominion Land Co. . . . . 116</p> <p>Oliver Mfg. Co., The Wm. . . . . 82, 84</p> <p>Operator No. 17 care Manufacturers' Record . . . . . 4</p> <p>Otis Elevator Co. . . . . 18</p> <p>Owago Bridge Co. . . . . 32</p>	<p><b>P</b></p> <p>Paine Woven Wire Fence Co. . . . . 33</p> <p>Panall, S. . . . . 78</p> <p>Patterson, E. . . . . 78</p> <p>Patterson, W. H. . . . . 111</p> <p>Paulson, Linkwood &amp; Co. . . . . 111</p> <p>Paxson Co., J. W. . . . . 4</p> <p>Peaslee Machine Co. . . . . 22</p> <p>Peck-Hammond Co. . . . . 22</p> <p>Peelers Brick Machinery Co. . . . . 37</p> <p>Pemberton Injector Co. . . . . 37</p> <p>Penniman &amp; Fairley . . . . . 20</p> <p>Peters &amp; Son, James . . . . . 3</p> <p>Petroleum Iron Works Co. . . . . 103</p> <p>Pew, Arthur . . . . . 20</p> <p>Pfaff &amp; Kendall . . . . . 81</p> <p>Pharmacia &amp; Chemical Co. . . . . 101</p> <p>Philips Press Steel Pulley Co. . . . . 4</p> <p>Phillips, A. M. . . . . 20</p> <p>Phoenix Iron Works Co. . . . . 20</p> <p>Phos. Bronze Smelt Co. . . . . 4</p> <p>Pickering Governor Co. . . . . 4</p> <p>Piedmont Electric Co. . . . . 114</p> <p>Pittsburg Pneumatic Co., The . . . . . 22</p> <p>Plant, Box 57, Norfolk, Va. . . . . 78</p> <p>Plant, Fred. E. . . . . 82</p> <p>Plymouth Cordage Co. . . . . 13</p> <p>Pomona Terra-Cotta Co. . . . . 41</p> <p>Port Eng. &amp; Mch. Co. . . . . 101</p> <p>Porter Company, H. R. . . . . 8</p> <p>Power &amp; Mining Mch. Co. . . . . 8</p> <p>Power Specialty Co. . . . . 8</p> <p>Polwanth Clay Mfg. Co. . . . . 33</p> <p>Pratt Engineering &amp; Machine Co. . . . . 41</p> <p>Pratt, Henry L. . . . . 41</p> <p>Precher, G. Lloyd . . . . . 20</p> <p>Preslar Prospecting &amp; Eng</p>
--	--	---	---	---	---	--	---	--	--	---	--	---	---	--	---	---



Trenton Engine Co.	6
Trenton Iron Co.	100
Trexler Lumber Co.	101
Trinidad Manufacturing Co.	114
Triumph Electric Co.	114
Triumph Ice Machine Co., The	105
Trump Co., The	27
Trussed Concrete Steel Co.	27
Tucker & Laxon	21
Tudor Boiler Mfg. Co.	6

U	
Union Iron Works Co., The	83
Union Mining Co.	8
Union Steam Pump Co.	89
Union Sulphur Co.	2
United Roofing and Manufacturing Co.	104
United States Cast Iron Pipe & Foundry Co.	85, 85
United States Equipment Co.	82
United States Rail Co.	24
U. S. Wood Preserving Co.	24
Universal Portland Cement Co.	24
Universal Road Machinery Co.	59

V	
Valk & Mordock Iron Works	23
Van Winkle Gin & Machine Co.	110
Victor Manufacturing Co.	23
Vietz, J. J.	10
Vilter Manufacturing Co.	10
Virginia Bridge & Iron Co.	39
Vitrified Pipe Co.	87
Vogt Machine Co., Henry	10
Voigtmann & Company	23
Von Schon, H.	49
Voorhees Rubber Mfg. Co.	18
Vulcan Iron Works	87
Vulcanite Portland Cement Co.	116

W	
Wagner Electric Manufacturing Co.	4
Walker & Elliott	4
Wall Mfg. Supply Co., P.	5
Walsh & Weidner Boiler Co.	5
War Department	74
Ward Machinery Co., Wm.	82
Warren-Ehrlich	35
Washington, L. A.	78
Water Power Development Co.	20
Watkins Machine & Foundry Co.	82
Watson-Stillman Co.	41
Weems, J. B.	20
Weir Frog Co.	82
Westbrook Elevator Co.	19
Western Electric Co.	115
Western Home Nursery Co.	79
Westinghouse Electric & Manufacturing Co.	7
Westinghouse Machine Co.	39
West Pascagoula Creosoting Works	82
West Virginia Rail Co.	82
Wetherill & Co., Inc., Robt.	4
Wheeler Cond. & Eng. Co.	41
Wheeler Manufacturing Co., G. H.	9
White, Gilbert C.	21
White & Co., J. G.	21
Whitlin Machine Works	19
Whiting Foundry Equipment Co.	19
Whittier & White, Inc.	21
Whittier Spinning Ring Co.	106
Whitlock Coil Pipe Co.	21
Whymann & Co., R. O.	20
Wickes Bros.	80
Williams Bros.	106
Williams Co., The G. H.	2
Williams Patent Crusher & Pulverizing Co., The	38
Williams & Sons, I. B.	18
Williamson Bros. Co.	91
Wilmington Iron Works	82
Wilson & Co., E. H.	84
Wilson, P. St. J.	78
Willeman A. P.	100
Wisconsin Machinery & Mfg. Co.	81
Wolf Co., Fred W.	10
Wolf Co., The	41
Wood & Co., R. D.	106
Wood Iron & Steel Co., Alan	29
Wood's Sons Co., T. B.	38
Worthington, Henry R.	104
Wyckoff & Son Co., A.	104

Y	
Yarley & Son, Alexander	78
York Bridge Co.	82
York Manufacturing Co.	10
York Portland Cement Co., The	25
York Safe & Lock Co.	113
Young & Co., Ltd., J. S.	89
Young & Seldon Co.	34
Youngtown Sheet & Tube Co.	34

Z	
Zelicker Supply Co., Walter A.	19
Zimmermann Steel Co.	2

## THE HOTEL ESSEX

Opposite South Terminal Station

BOSTON, MASS.

European Plan  
Rates Moderate  
Absolutely Fire-Proof  
Free Transfer Baggage from and to Station  
Terminal of Trains from South and West  
Also Plaza Hotel, N. Y.

THE HAMMOND HOTELS  
F. A. HAMMOND, President.

## GIBBES MACHINERY CO.

FOUNDERS  
AND  
MACHINISTS



POWER  
PLANTS A  
SPECIALTY

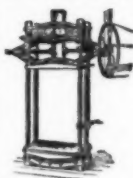
MANUFACTURERS and JOBBERS

Engines, Boilers, Sawmills and Woodworking Machinery, Lath and Shingle Machinery, Corn Mills, Ginning Machinery, Brick Machinery, Excelsior Machinery.

MURRAY CORLISS ENGINES

Write for Catalog "G" Columbia, S. C.

## YOU CAN STOP THIS PRESS



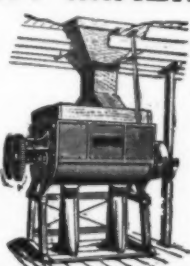
wherever you want to at any point of its upward or downward movement. It is wonderfully efficient in baling goods, or when used where great pressure is needed.

Always Under Control  
Send for illustrated catalogue

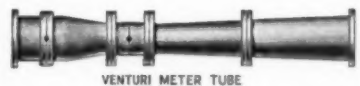
BOOMER & BOSCHERT PRESS CO.  
386 W. Water St. SYRACUSE, N. Y.

## The Broughton DRY MIXER

FOR  
Hard Plaster  
Cement  
Paint, etc.



W. D. DUNNING  
96 W. Water St.  
SYRACUSE N. Y.



VENTURI METER TUBE

## THE VENTURI METER

actually measures hot and cold water, brine, chemical solutions, sewage, etc.

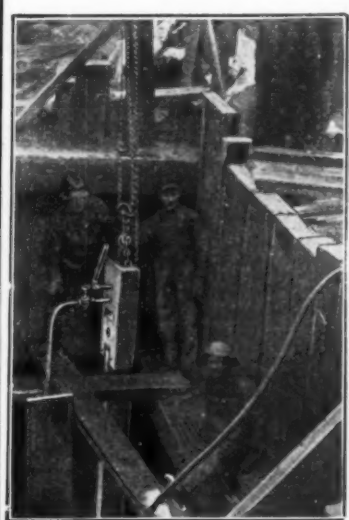
It remains accurate because there is no mechanism in contact with the liquid.

It gives TOTAL gallons and also makes a graphical chart record of rate of flow.

Five large Venturi Sewage Meters are being installed on new Baltimore Sewage Disposal Plant as described in Manufacturers' Record, Sept. 30, 1908. We will furnish reprints upon request, also full Venturi Meter information.

## BUILDERS IRON FOUNDRY

PROVIDENCE, R. I.



## ARNOTT PILE HAMMER

For driving steel or wood sheeting and round or square piles.  
Made in six sizes from 750 to 6500 pounds weight.  
Frame and body in one casting, making it strong, compact and proof against rough handling.  
Operated by either steam or air.

The Union Iron Works, Inc.  
West Shore Station,  
HOBOKEN, N. J.

*Get this book*

The smallest BIG catalogue of mill, factory and machine shop supplies, machinery and appliances.

With 44 pages of special tables, rules and formulae of extreme value to the superintendent or foreman.

This catalogue covers machinery and supplies for flour mills, coal mines, oil mills, elevators, breweries, etc.

516 Pages Pocket Size  
Send the coupon to save time.

Reuter-Jones Mfg. Co.  
1607-1617 S. 3d St., ST. LOUIS, MO.

REUTER-JONES MFG. CO.  
1607 South 3d St., St. Louis, Mo.  
Please send the G6jr. Catalogue.  
Name.....  
Street Address.....  
City.....State.....  
Firm Name.....

## EATON & BURNETT BUSINESS COLLEGE

AND  
School of Shorthand and Typewriting  
9 & 11 WEST BALTIMORE ST.  
BALTIMORE, MD.

General, Corporation and Voucher Bookkeeping,  
Pitmanic Shorthand, Touch Typewriting,  
Individual and Class Instruction

Young Men and Women desiring to embrace the opportunity for securing a First-class Business Education, with Splendid Facilities, experienced men as Teachers and Up-to-date Methods, will find it at this College.

DAY SCHOOL OPEN ENTIRE YEAR NIGHT SCHOOL OCT. TO APRIL

Call, Write or Phone for Catalogue  
Please Mention Manufacturers' Record

## PUNCHES, SHEARS, ROLLS, BOILER MAKERS' TOOLS, Etc.

## COVINGTON MACHINE CO.

COVINGTON, VA.

## Reduce Your Insurance!

By using Approved Watchman's Clocks.  
"NEWMAN," "IMPERIAL" AND "ARGUS"  
Southern Agent, - - LOUIS E. KAISER  
Time Recording Devices, etc.  
3 S. Liberty Street BALTIMORE, MD.  
Dials and Repairs for any Clock

## The "Eco" Portable WATCHMAN'S CLOCK

Approved by all insurance companies. Ask for catalog and prices. Handled by mill supply dealers in all sections of the South. If you desire personal visit, say so. Southern Dept. ECO MAGNETO CLOCK CO., Mutual Building, Richmond, Va.

## WILLIAM LIEBIG & CO.

Manufacturers of Brush Machinery  
DETROIT, MICH.

## LATEST MANTLE LAMP

## PINTSCH LIGHT

COST PER HOUR, ONE CENT  
"Hourly Consumption 2.12 Cubic Feet"  
"Candle Power, 99.5"  
J. G. Denton, Prof. Engineering Practice, Stevens Institute, Hoboken, N. J.  
Specialists in water circulating & direct Steam Heating Appliances.

THE SAFETY-CAR HEATING & LIGHTING CO.  
2 RECTOR ST., NEW YORK.

# Classified Opportunities

## AGENCY WANTED

**DISTRIBUTING AGENCY WANTED.**—I have large storage capacity and good facilities for distributing light merchandise in this city and State. Address E. J. Gartley, P. O. Box 848, Jacksonville, Fla.

**WANTED.**—The selling agency for a good specialty, patented article or special line of goods for New England and the U. S. by an experienced salesman and manager; any good article, no matter how small or how large or how little known, will be considered; will pay prompt cash, but must have exclusive territory. Address P. O. Box No. 2358, Boston, Mass.

## AGENTS WANTED

**WANTED.**—Well connected electric-power solicitor or superintendent of lines for electric plant to act as agent, on the side, for an electric-motor and dynamo-repair concern with good reputation for dependable repairs. Address No. 523, care Manufacturers' Record.

## SALESMEN WANTED

**WANTED.**—A reliable salesman to sell fire bricks on commission. Columbia Brick & Plaster Co., North East, Md.

## SITUATIONS WANTED

**EXPERIENCED.** practical engineer wants position; young; hard worker; knows concrete construction; accustomed to plan, estimate cost, manage work and labor; field, factory or office. Trimble, Box 603, Richmond, Va.

**YOUNG MAN.** American, single, age 26, wishes a position with engineer or engineering company working on water-power developments, or with some company building water-power-plant machinery, or with some company operating hydro-electric plant. Class '07, civil-engineering graduate Southern technical college. At present employed, but ready for work, almost any location, about Dec. 15, or can wait until Jan. 1 to begin. Will explain reason for making change if wished. Have had some commercial experience. An engineering apprentice for two years after graduating from college with large power machinery company, building steam, gas, electrical and water-power machinery. Mostly floor erecting experience on the four kinds of power machinery. Electrical and mechanical experience given more fully if wished. Hope to get fair salary, but the salary is not main consideration. Good references given. Haven't you some kind of opening to offer? Replies strictly confidential. Address H. P. Hodges, 616 Mulberry St., Scranton, Pa.

**BY GRADUATE M. E.** experienced designer, chief draftsman and superintendent, with firm who wants to build pumps, compressors and engines of new, economic design. Address No. 633, care Manufacturers' Record.

## BUSINESS OPPORTUNITIES

**PARTNER WANTED** in planing mill and box factory; good location and plenty of suitable timber to be had. For particulars address W. Forslund, Marshall, Texas.

**SOUTHERN** coal, timber and phosphate lands; water-power, bank stock, franchises, plants, business properties, city real estate, etc. Lucas & Lucas, Washington, D. C., office, 308 Evans Building.

**EXPERIENCED** suspender manufacturer would like to locate in some good Western town, preferably Oklahoma City or Kansas City. Parties who are interested in a business of this kind and can invest \$10,000 to \$15,000, kindly address A. Landau, Box 615, Atlanta, Ga.

**50,000-ACRES OAK TIE AND PILING TIMBER.**—I have contracts on this vast acreage stumpage; fifteen years to remove; will yield millions of oak ties. I want to interest capital to syndicate and operate this timber. Two dollars an acre. Investment of any amount solicited. Jo A. Parker, Parma, Mo.

**ON A CAPITAL OF \$150,** with some brains and hustle, an annual income of \$3000 and upwards can easily be made, only occupying part of your time; with small capital an unusual opportunity is offered to build up an independent business handling the Thurman Portable Electric Vacuum Cleaner. Write today for particulars. We also manufacture Portable Wagon House-to-House Cleaners. Genl. Compressed Air and Vacuum Machinery Co., 619-MR, North Taylor Ave., St. Louis, Mo.

**I HAVE PATENTED** a simple and inexpensive device for securing employees' working clothes in mills and shops, allowing free inspection and observation of same, resulting in minimum fire risk; no floor space required; lockers abolished. Correspondence solicited with those interested. Fred Thompson, U. S. N., Care Miss Lake, Warrenton, Va.

**PATENTS.**—Send me disclosure of your important invention. I will personally prepare the case. Hubert E. Peck, 629 F St. N. W., Washington, D. C.

**WOULD like to get in communication with** a party who thoroughly understands the manufacture of water paints. Address No. 537, care Manufacturers' Record.

**Rate 20 cents per line per insertion.** Minimum space accepted, four lines. Maximum space accepted, 24 lines. Allow seven words per line. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year, as follows: 100 lines, 18c. per line; 300 lines 16c. per line; 500 lines or more, 15c. per line.

## QUEENSWARE OPPORTUNITY

**CHARLESTON, W. VA.** the center of a large jobbing business, presents a splendid opening for a wholesale queensware establishment. Address Secretary Chamber of Commerce, Charleston, W. Va.

## HOTELS WANTED

**MARLIN, TEXAS, THE CARLSBAD OF AMERICA.**—Excellent opportunity for experienced hotel people with capital to cater to high-class winter patronage. Our hot mineral water is richer than the Carlsbad water in the same properties that make that water famous. We have an established patronage all the year round of tourists and health seekers. Our water has an established reputation as a cure for rheumatism, stomach troubles and skin and blood diseases. We have first-class hotels, boarding-houses and bathhouses, all doing a fine business, but there is an opening for an exclusive winter hotel and sanitarium catering to Northern tourists. The supply of our present 3550-foot well is being used, and we are now sinking a similar well. Flow of present well, 180,000 gallons per day. Temperature of water, 147 degrees. Our attractive winter climate makes us the winter training place for the New York Glacis. For information and literature address Marlin Commercial Club.

## HOTEL FOR SALE

**A MODERN** substantial 45-room 3-story frame hotel, one block from Grand Central Depot five minutes walk from business center, Houston, Texas; water, electric lights, baths and modern conveniences; nearly new and in good repair. Rental, \$150 per month, three years' contract. Houston is one of the best hotel towns in the South. This is a fine rental and investment property, with promising speculative values attached, as the city is rapidly developing along that direction. Price \$25,000; might take part trade. Address W. S. Craig, Owner, Navasota, Tex.

## TYPEWRITERS

**TYPEWRITERS.**—New, rebuilt and second-hand; all makes at lowest prices and guaranteed. Southern Typewriter & Supply Co., 229 West Fayette street, Baltimore, Md.

**NO. 2 SMITH PREMIER** and No. 6 Remington, push-button machines, rebuilt like new, \$45; overhauled Smiths and Remingtons in good order, \$35; No. 3 Oliverts, rebuilt, \$35 to \$45; Underwoods, rebuilt, \$45 to \$57.50. M. W. Lucy & Co., Typewriter Exchange, 225 W. Fayette St., Baltimore, Md.

## REAL ESTATE

### GENERAL

**IF YOU WANT TO BID ON TEXAS** School Lands which can be had for \$2 to \$10 per acre, on forty years' time at 3 per cent. interest, or want to purchase or trade for property of any kind in the State of Texas, address The Stacy-Robbins Company, Austin, Texas. Refer to any bank in Austin.

**FLORIDA.**—Why not spend the winter in Florida? Boarding-house rates; real estate bargains; orange groves, etc.; hunting; fishing; copy weekly paper, any information, free. Write J. M. R. Crosby, San Mateo, Fla.

**FOR SALE.**—Fine tracts of timber in Virginia and North Carolina from 1,000,000 to 40,000,000 feet. Farms from 50 to 1000 acres from \$1000 to \$15,000. Write me what you want. E. H. Hare, R. No. 2, Holland, Va.

**FOR SALE.**—2600 acres; 1200 acres cultivated; residence, 35 tenant-houses, ginney, grist mill, cane mill; makes 450 to 500 bales cotton and corn to run the place; 31 miles; full farm equipment; this year's corn and feed crops included in price; good terms; \$52,500. 5000 acres, highly improved; depot on place; makes 500 bales cotton; \$75,000. 4000 acres; embraces townsite; everything new and good; rents for 150 bales cotton; \$80,000. 600 acres; splendid improvements; well located; good terms; \$12,000. 125 acres first-rate land; 40 acres cultivated; timber valuable; no waste; rents two bales cotton; \$750. Write for list of farms. G. H. Waddell, Americus, Ga.

**TEXAS LANDS.**—Texas figs are World's Fair winners. One acre set in figs and one town lot, \$230, payable \$10 down and \$10 per month, without interest; no payments when sick; clear warranty deed in case of death. Local market for fruit. Money back in four years, with annual income thereafter for life. If you want to enjoy life in South Texas under your own vine and fig tree, or make a safe, profitable investment, write for particulars. Agents wanted. Orange groves sold on same terms. E. C. Robertson, 501 Kiam Bldg., Houston, Texas.

**FOR LEASE.**—99 years, vacant corner, 100 feet, in the very heart of the business district of Houston, Texas, the most rapidly-growing city of the Southwest. Britton & Sam, Houston, Texas.

**WE OWN** 200,000 acres of land in Gaines county, Texas. We want to sell 25,000 acres this winter. We will deed in quarter sections and let each quarter stand as its own security for unpaid purchase money. Unusual opportunity for investment or colonization. We handle our own lands only. Russell, Bulkeley & Riley, Midland, Texas.

**TEXAS LAND.**—65,000 acres fine land in Hidalgo county, Texas, 3 miles from county seat; railroads on two sides of it; in the great sugar-cane and winter garden belt of Texas, and will be sold at a great snap, \$12.50 to \$15 per acre. Liberal terms will be given to purchaser. Call on or write the First National Bank, Hays City, Kans.

**IF YOU WANT TO BUY ARKANSAS** LAND, write S. C. Dowell, Walnut Ridge, Ark., who owns and controls thousands of acres of the finest farming and timbered lands in the State at the lowest prices.

## MINERAL AND TIMBER LANDS

**3000 ACRES.**—Asphalt rock, finest material for roadbuilding; coal, timber, iron and limestone, all on same land; very accessible by water and railroad; price upon application. Nicol & Ransdell, Box M. R., Manassas, Va.

**FINEST** yellow-pine properties of today, on Kansas City, Mexico & Orient Ry., in Mexico; 90,000 acres, \$1.50 gold per acre, 1/2 cash, balance 1 and 2 years at 7%; 18,000 at \$2, 1/2 cash, balance 1 and 2 years at 7%. Enough railroad ties contracted for to liquidate deferred payments. Address Trommlitz Brokerage Co., Galveston, Texas.

**FOR SALE.**—13,667 acres fine hardwood on railway; stumpage only is offered at \$8.50 per acre; will cut 50,000,000; mostly white oak; located in Tennessee. 9000 acres, Tennessee, on railway; will cut 50,000,000; mostly white oak; good roads. Price for quick sale, \$135,000. Write for complete information. W. P. Allen, Box 353, Sharon, Tennessee.

**12 MILLION FEET PINE TIMBER.** 2 to 4 miles from transportation. In Bladen county, N. C.; logging conditions good; freight rate low; about one-third of it long-leaf pine and worked for turpentine 2 years; covers 1150 acres of land; is a fine body of timber and no doubt will be bought by the first party who investigates. Price \$20,000. R. E. Prince, Raleigh, N. C.

**FOR SALE.**—Good investments mining and industrial properties, also mineral and timbered lands. Write for information. W. Fairley & Co., 922 Empire Bldg., Birmingham, Ala.

**35,000,000 FEET** standing pine, cypress, gum, ash and oak timber for sale on and near A. C. L. R. and Tar River. Address J. R. Davenport, Pactolus, N. C.

**FOR SALE.**—400,000,000 virgin yellow pine, West Florida; also best 75,000-acre pine and cypress tract in State. Whispell & Irwin, Jacksonville, Fla.

## ORANGE GROVES

**A BARGAIN** in an orange grove if taken at once; 48 acres of good truck land; 7 acres in good bearing grove; will pay little over 15 per cent. this season; cash price, \$3300. Address M. M. Sheilaberger, R. No. 1, Bartow, Fla.

## COAL MINES

**FOR SALE.**—Coal mine in Central Illinois, on Chicago & Alton Railroad; fully equipped and in good condition; capacity 1000 tons per day; 1000 acres of coal in fee or lease. Address C. Cooper, Nilwood, Ill., or L. W. Cline, Litchfield, Ill.

## GYPSUM ROCK

**GYPSUM ROCK FOR SALE.**—M. J. Skivington of Mumford, N. Y., has eight feet of gypsum rock; analysis, 94 to 96.7; one mile from four railroads. Call and see the cores.

## FARMS AND TRUCK LANDS

**IN FAMOUS PEE DEE SECTION, SOUTH CAROLINA,** improved farm and truck lands for sale; reasonable terms; splendid trucking country; shipping facilities unsurpassed; purchase money can be cleared first year's profits. James D. Evans, Atty., Florence, S. C.

**SUNNY FLORIDA.**—10-acre fruit and vegetable farm, \$300; \$20 down and \$10 per month; in the rich Lawley district, 40 miles from Jacksonville; 3 crops yearly; from 10 acres you can make a comfortable fortune; delightful climate. Write at once for maps and particulars. Miller & Koellner, Park Row Bldg., New York.

**SPLENDID Albemarle Co.** fruit and dairy farm for sale; full view Monticello; 5 miles Charlottesville; one mile station; 212 acres; 17 buildings, mostly new; fine land; alfalfa; Keswick neighborhood; hunt club; bargain to quick purchaser; stock, crops, etc. Address Owner, care Postmaster, Shadwell, Va.

**FOR SALE.**—Fine farm of 76 acres, 10 in timber, 10 in wheat, 10 in clover; five-room house; large barn; fine outbuildings; 1000 peach trees and other fruit of all kinds; on river front in sight of depot and town; price \$3500.

**Also 28-acre farm,** all fine clear land; good barn; two miles from town; fine location; price \$800; easy terms. Address Gooden & Smith, Maryland, Md.

**A BEAUTIFUL SOUTHERN HOME** for sale by the owner at a sacrifice. This is one of the best farms in Southeast Georgia; few miles from large city, on main public road; 900 acres; six-room residence, two-room house, three-room house, barns, stables, out-houses, timber, live stock, implements, beautiful lake, shade trees, pecans, figs, grapes, mulberries, etc.; all for \$13,500. Frank Wheeland, Jacksonville, Fla.

**VIRGINIA COUNTRY HOMES.**—We make a specialty of handling country estates in Virginia, and have some beautiful places along the James and York rivers. One handsome place with fine brick mansion over 300 years old is offered at a low price. The river views are magnificent. Send 10 cents in stamps for literature and other information. F. H. Ball, General Manager, Box R, Williamsburg, Va.

**TEXAS LANDS.**—Farm, ranch and truck; large tracts for investments; colonization rapidly absorbing large acreage; thousands seeking comparatively cheap Texas lands for future homes. Trucking, near ready market, solves vital question with many having small capital; easy payments. Warner & Company, Austin, Texas.

**N. C. FARMS FOR SALE.**—From 10 to 10,000 acres, adapted to the growing of almost any kind of crop. Some very nice places from 400 to 600 acres. The crops now on them will prove it. Ask for list. State your wants. R. E. Prince, Raleigh, N. C.

**A RARE CHANCE** to get a home and enjoy life in the famous Rio Grande Valley, the winter garden of the world, where flowers, fruit and vegetables grow; winter summer; 10, 20, 25, 50 and 100 acre tracts of the finest fruit, truck and grape land at from \$25 to \$50 per acre; fine climate; plenty of water; good transportation facilities. For particulars address Citrus Fruit Development Co., Brownsville, Texas.

## IRON ORE LANDS

**IRON-ORE LANDS.**—Large deposits of titaniferous iron ore in Guilford and Rockingham counties, North Carolina. Refer to File No. 1238. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

## COAL LANDS

**FOR SALE.**—4500 acres famous New River coal at a bargain if taken at once; also 12,000 to 40,000 acres Kanawha coal, lying on railroad, at prices so low as to make purchase a fine speculation. Kanawha Realty Co., Charleston, W. Va.

## FACTORY SITES

**FOR SALE.**—A good factory site in a fine location near the city of Chattanooga, Tennessee; there are two steam engines, one gas engine, good boiler and several smaller machines, pulleys and shafting; there are also three good buildings and three choice lots with a railroad track running through property. Machines and buildings are worth the price asked. Address Hail Bros., Chattanooga, Tennessee.

## FACTORIES WANTED

**BUFORD, GEORGIA,** 37 miles northeast of Atlanta, on Southern R. R., population 3000, wants cotton mill; shirt, overall and pants factory; brick plant, laundry, bakery, furniture factory, etc. The best location South for wagon and buggy manufacturing, as we have abundance of the best of oak and hickory timber. Also have cheap electric power; fine free school, two banks and churches for everybody. All inquiries answered by Secretary of Board of Trade, Box 212, Buford, Ga.

**QUANAH,** leading jobbing city Northwest Territory, two wholesale grocery houses, two wholesale produce houses, one wholesale dry goods house; wants wholesale drug, furniture, shoe and implement houses. Great developing country; three railroads; magnificent opportunities. Address Chamber of Commerce, Quanah, Texas.

**COTTON MILLS WANTED BY LAWTON,** metropolis of Southern Oklahoma; special inducements offered for cotton mills, factories and wholesale houses of all kinds. Lawton is in the cotton belt, far from cotton mills and jobbing centers; ideal climatic conditions; vast tributary country; abundance of best quality of pure mountain water; natural distributing point; eight years old; 10,000 people; capital of Comanche county. Lawton has nine different U. S. Government institutions, each enlarging; five diverging railroads; more building. For special information write Secretary of Chamber of Commerce, Lawton, Okla.



airy  
niles  
res;  
alfa;  
gain  
Ad-  
Va.

0 in  
oom  
1900  
; on  
own;  
good  
ion;  
n &

for  
one  
few  
oad;  
room  
out-  
beau-  
apes,  
hey.

make  
es in  
laces  
and-  
r 200  
river  
s in  
tion.  
Will-

uck;  
rap-  
seek-  
r fu-  
rket,  
small  
pany,

0 to  
f al-  
nice  
now  
State  
C.

d en-  
alley,  
flow-  
and  
ts of  
d at  
lenty  
For  
velop-

ts of  
Rock-  
er to  
d in-  
shing.

River  
also  
og on  
pur-  
tealty

a fine  
Tena-  
ne gas  
r ma-  
e also  
e lots  
prop-  
th the  
hatta-

east of  
n 3000,  
pante  
furni-  
South  
as we  
h hick-  
power;  
nes for  
Secre-  
rd, Ga.

thwest  
s, two  
ale dry  
niture,  
evelop-  
fficient  
Com-

WYTON.  
pecial  
facto-  
Law-  
cotton  
ilmatic  
abund-  
water;  
rs old;  
county.  
rument  
verging  
l infor-  
of Com-